

1 October 2007

Ohana Military Communities, LLC  
5173 Nimitz Road  
Honolulu, HI 96819

Re: Phase I Environmental Site Assessment Update  
Camp Smith Marine Corps Family Housing Property

To Ohana Military Communities, LLC:

We have conducted a Phase I Environmental Site Assessment Update ("Update") in accordance with the American Society of Testing and Materials' ("ASTM") Standard Practice E 1527-05 for the Camp Smith Marine Corps Family Housing Area (the "Site"). As part of this Update, we have, among other things, conducted visual inspections of the Site and adjoining properties, interviewed a knowledgeable representative of Ohana Military Communities, LLC and appropriate regulatory agency officials, obtained an updated electronic environmental reports database search report, and reviewed an updated environmental lien search commissioned by Ohana Military Communities, LLC. In addition, Ohana Military Communities, LLC, as User, has provided us with the information required by Section 6 of the ASTM Standard Practice E 1527-05 where applicable. Interviews of housing occupants were not conducted in accordance with Section 10.5.2.1. The following summarizes these activities:

- ◆ Visual inspections of the Site were conducted on 13 July 2007. There were no changes to the Site or the housing units. Demolition or replacement of the housing units has not taken place. There were no changes to adjoining properties as observed during the visual inspections.
- ◆ The environmental database search conducted on 16 July 2007 reported additional sites within the ASTM Standard Practice E 1527-05 minimum search distances for the following databases: State/Tribal Sites, Facility Index System ("FINDS") and Resource Conservation and Recovery Information Generators ("RCRA GEN"). These sites were not included in the environmental database report prepared for the September 2006 Phase 1 ESA. In addition, there are three unmapped sites that have been identified in the environmental database search report. Information on these additional sites are listed as follows:
  - State/Tribal Sites – Hawaiian Cement Halawa Quarry. This facility was subject to the Site Discovery, Assessment and Remediation (SDAR) program of the Hawaii Department of Health. The state has determined that no further action is required for this facility; therefore, this property does not constitute a REC to the Site.
  - FINDS – Hawaii Biotech Inc. This facility is listed as being under the hazardous waste (small quantity generator) compliance program. There are no ongoing investigations/compliance actions for this facility; therefore, this facility does not constitute a REC to the Site.
  - RCRA GEN – Hawaii Biotech Inc. This facility is listed as a generator of hazardous waste. There are no ongoing investigations/compliance actions for this facility as a hazardous waste generator; therefore, this facility does not constitute a REC to the Site.
  - NFRAP (not mapped) – Camp Smith, Halawa Heights Headquarters. This is the base headquarters. It is listed in the EPA's database for sites designated as No Further Remedial Action Planned – N, meaning it is not on the National Priorities List; therefore, this facility does not constitute a REC to the Site
  - RCRA GEN (not mapped) – Halsey Terrace Naval Housing Area. This facility is listed because it is a conditionally exempt hazardous waste generator. There are no ongoing

investigations/compliance actions for this facility; therefore, this facility does not constitute a REC to the Site.

- RCRA GEN (not mapped) – US Navy Commander, Navy Region Hawaii Red Hill FT Farm. This facility is listed as a large quantity generator of hazardous waste. There are no ongoing investigations/compliance actions for this facility; therefore, this facility does not constitute a REC to the Site.
- ♦ (b) (6) of Ohana Military Communities, LLC was interviewed on 13 July 2007 regarding ongoing activities at the Site. According to (b) (6), there are no environmentally-related activities ongoing at the Site.
- ♦ A new chain of title for the Site, dated 1 August 2007 and commissioned by Ohana Military Communities, LLC, was reviewed. There were no environmental liens found in the chain of title for the Site.
- ♦ The Hawaii Department of Health Office of Hazard Evaluation and Emergency Response (“HEER”) was contacted on August 6, 2007 for information regarding ongoing investigations/compliance actions related to the Site. (b) (6) of the HEER directed Parsons to contact the Marine Corps’ Installation Restoration Program Manager, (b) (6). (b) (6) was contacted on August 13, 2007, and he indicated that there are no ongoing investigations/compliance actions at the Site.

Based upon the information obtained from the above mentioned activities and our review of the previous Phase I and II ESAs, both dated September 2006, we have concluded that the condition of the Camp Smith Marine Corps Family Housing Property has not changed since our previous Phase I and II ESAs. Additional sites identified by the environmental database search as listed above are not RECs for the reasons stated above. With regard to previously identified RECs, those associated with the housing units (i.e. ACM, LBP, PCB, canec board, smoke detectors, mercury in light switches and lamps) will continue to be RECs until the housing units are demolished and replaced. We have not identified any new RECs on the Camp Smith Marine Corps Family Housing Property.

All other aspects of our prior Phase I and II ESAs for the Site, both dated September 2006, were reviewed by Parsons, remain valid and in effect, and are hereby restated. Copies of those reports are attached hereto and are hereby incorporated by reference.

In conclusion, we have performed a Phase I Environmental Site Assessment Update in conformance with the scope and limitations of ASTM Practice E 1527 of the Camp Smith Marine Corps Family Housing Property. This assessment has revealed no evidence of additional RECs in connection with the property.

This report was prepared for Ohana Military Communities, LLC, its Managing Member and other Members of Ohana Military Communities, LLC. It may be relied upon by Ohana Military Communities, LLC, its Managing Member and other Members of Ohana Military Communities, LLC, the United States of America, Department of the Navy, (b) (4)

[REDACTED], and each of their respective officers, directors, employees, affiliates, successors, assigns, legal counsel and advisors. The information and conclusions presented in this report are valid only for the circumstances of the Site as described as of the dates in this report.

Sincerely,

(b) (6)

**PARSONS**

Attachments:

Environmental Professional Statement and Signature

Final Phase I Environmental Site Assessment – Camp Smith Marine Corps Family Housing, September 2006

Phase II Environmental Site Assessment – Camp Smith Marine Corps Family Housing, September 2006  
Database Search

## ENVIRONMENTAL PROFESSIONAL STATEMENT AND SIGNATURE

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of Title 40, Code of Federal Regulations (CFR), Part 312 dated 1 November 2005.

I have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the Camp Smith Marine Corps Family Housing Property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

(b) (6)

October 1, 2007

(b) (6), P.E.



# ***FINAL PHASE 1 ENVIRONMENTAL SITE ASSESSMENT***

## ***CAMP SMITH MARINE FAMILY HOUSING AREA***

***Prepared for***



**Honolulu, Hawaii**

**September 2006**

***Prepared by***

**PARSONS**

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## **ACRONYMS AND ABBREVIATIONS**

ACM	Asbestos-containing material
AIRS	Aerometric Information Retrieval System
AST	Above Ground Storage Tank
ASTM	American Society of Testing and Materials
AUL	Activity and Use Limitation
BS	Bachelor of Science
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
COR	Corrective Action Report
EP	Environmental Professional
ERNS	Emergency Response Notification System
°F	Degrees Fahrenheit
FAA	Federal Aviation Administration
FCC	Federal Communication Commission
FINDS	Facility Index System
FOS	Finding of Suitability
FRS	Facility Registry System
FTTS	FIFRA/TSCA Tracking System
GEN	Generator
HAZNET	Hazardous Waste Information System Database
HDOH	Hawaii Department of Health
HMIRS	Hazardous Materials Incident Response System
HUD	United States Department of Housing and Urban Development
kg	Kilograms
km	Kilometer
LBP	Lead-based paint
lbs	Pounds
LQG	Large Quantity Generator
LUST	Leaking underground storage tank
m	Meter
MS	Master of Science
µg/ft <sup>2</sup>	Micrograms per Square Foot
NCDB	National Compliance Data Base System
NESHAP	National Emission Standard for Hazardous Air Pollutants

***PHASE I ENVIRONMENTAL SITE ASSESSMENT  
CAMP SMITH MARINE FAMILY HOUSING AREA  
AIEA AREA OF O'AHU, HAWAII***

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NFRAP	No Further Remedial Action Planned
NLR	No Longer Report
NOI	Notice of Intent
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NWI	National Wetlands Inventory
PCB	Polychlorinated biphenyl
pCi/L	picoCuries per liter
PE	Professional Engineer
ppm	parts per million
RADINFO	Nuclear Regulatory Commission Database of Permitted Nuclear Facilities
REC	Recognized Environmental Condition
RCRA	Resource Conservation and Recovery Act
SQG	Small Quantity Generator
SSTS	Section Seven Tracking System
TCLP	Toxic Characteristic Leaching Procedure
TIGER	Topologically Integrated Geographic Encoding and Referencing System
TIS	Track Info Services, LLC
TRIS	Toxic Release Inventory System
TSCA	Toxic Substances Control Act
TSD	Treatment, Storage, and/or Disposal
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground storage tank
WRCC	Western Regional Climate Center Web Page ( <a href="http://www.wrcc.dri.edu/">http://www.wrcc.dri.edu/</a> )

## **1.0 SUMMARY**

Parsons conducted a Phase I Environmental Site Assessment in conformance with the American Society of Testing and Materials (ASTM) Standard Practice E 1527-05 for the following site:

- The Camp Smith Marine Family Housing Area, located in the Aiea Area of O'ahu, Hawaii

The site is 5.173 acres. Exhibit 1, Site Map, presents the general location of the site. A complete legal description and detailed view of the site is presented on Exhibit 2, Site Survey Map.

The site consists of 10 housing units for Marine personnel. There is no open access to the site; it is located within a secured base. The housing units are primarily single family homes with one duplex. The units were built in 1965 and 1970. The square footage of the units range from 1,268 to 1,971 square feet. The units have 3 or 4 bedrooms, and 2 to 3.5 bathrooms (Ohana, 2006). One unit was available for inspection.

Ohana Military Communities, LLC will be the lessee of the site and will be the owner of 10 improvements, of which 10 will be demolished, and will be replaced with 10 newly constructed units.

The housing unit construction consists of cinder block with wood and cement used for porches. Roofing material included asphalt shingles.

Available information for the site and surroundings was collected and evaluated to identify Recognized Environmental Conditions. According to the American Society for Testing and Materials (ASTM) Standard Practice E 1527-05, the term Recognized Environmental Conditions (RECs) means "the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property."

Based on the definition of a REC in the ASTM Standard Practice E 1527-05, the following RECs have been identified for the site:

- During the site reconnaissance, suspect ACMs were noted in the following building materials: roof tar, sink undercoating and mastic for tiling and vinyl sheeting. According to an asbestos assessment prepared by the Department of the Navy Public Works Center, ACM is present in some units in sheet vinyl, floor tile and mastic, and assumed present in roofing material. It is recommended that

the presence of ACM be disclosed to prospective tenants. It is also recommended that during demolition activities, the ACM Management Plan be followed.

- Lead assessments conducted in 1997 and 2006 confirmed the presence of LBP at the site exceeding current action limits (Navy Public Works Center, 1997 and NAVFAC, 2006). It is recommended that the presence of LBP be disclosed to prospective tenants. Also, it is recommended that the LBP Management Plan be followed during demolition activities. It is recommended that LBP waste be tested for TCLP prior to disposal.
- During the site reconnaissance, fluorescent lighting that may contain PCB-containing ballasts was observed in various locations of the property. The majority of lights were of a newer, ballast-free design and hence PCB-free. However, older fixtures were observed. It is recommended that potential PCB-containing ballasts be properly managed.
- Due to the historic use of chlordane as a termiticide in homes, chlordane may exist in the soil near the foundation and under the building slabs. Surface and near-surface soil sampling for chlordane and other pesticides, including DDT, dieldrin, and heptachlor, is recommended.
- During the site reconnaissance, canec board was observed in interior walls and ceilings of some housing units at the site. Canec may contain arsenic at levels requiring handling and disposal as a hazardous waste. It is recommended that interior walls and ceilings suspected to be canec be sampled for total arsenic using toxic characteristic leaching procedure (TCLP) to determine proper handling and disposal requirements.
- Smoke detectors in older units have the potential to contain a radioactive source. Prior to demolition, smoke detectors should be inspected for a radioactive source, and handled and disposed of accordingly.
- Light switches and lamps in older units have the potential to contain mercury. During demolition, these switches and lamps should be removed and disposed of properly.

A Phase I Environmental Site Assessment does not include any sampling and analysis of potentially contaminated materials. The scope of work of this Phase I Environmental Site Assessment did not specifically include sampling and analysis, therefore no independent soil or groundwater or other sampling and analyses were conducted.

## **2.0 INTRODUCTION**

### **2.1 PURPOSE**

Parsons conducted a Phase I Environmental Site Assessment in conformance with the ASTM Standard Practice E 1527-05 for the purpose of identifying RECs at the following site:

- The Camp Smith Marine Family Housing Area, located in the Aiea Area of O'ahu, Hawaii

The site is 5.173 acres. A complete legal description and detailed view of the site is presented on Exhibit 2, Site Survey Map.

Exhibit 3 provides the approximate location of the site on a United States Geological Survey (USGS) topographic map.

The term REC, as defined in ASTM Standard Practice E 1527-05, means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with applicable laws. The term is not intended to include *de minimis* conditions that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

### **2.2 PHASE I TASKS**

Parsons performed the following tasks:

#### **2.2.1 Records review**

Available current and historical documents pertinent to environmental activities conducted in or near the site were reviewed. Topics of interest include chemical usage or inventories, waste management records, Resource Conservation and Recovery Act (RCRA) or Comprehensive Environmental Response Compensation and Liability Act (CERCLA) activities.

#### **2.2.2 Site reconnaissance and Interviews**

Site reconnaissance of the site to visually and physically observe and document conditions on the property was performed. One unit was available for interior inspection.

Interviews were conducted in keeping with the requirements of ASTM Standard Practice E 1527-05, § 7.1 – 7.2.

### **2.2.3 File search and records review**

A search of federal, state, and local regulatory agency electronic databases was performed. This database search identifies locations that are regulated under various environmental laws, notably CERCLA, RCRA, and Toxic Substances Control Act (TSCA). It also identifies locations where a release of hazardous substances has occurred or is suspected.

### **2.2.4 Historical records review**

Available historical aerial photographs were reviewed to confirm that a historic use information review was conducted to identify all obvious uses from the present back to the first developed use or 1940, whichever is earlier.

### **2.2.5 Evaluate data and prepare report**

Significant findings from the above-stated tasks were summarized, RECs were identified, and recommendations were made for additional site assessment activities, if needed.

## **2.3 SPECIAL TERMS AND CONDITIONS**

- The information and conclusions presented in this report are valid only for the circumstances of the site investigated as described as of the dates in this report.
- Parsons evaluated the reasonableness and completeness of available relevant information, but does not assume responsibility for the truth or accuracy of any information provided to Parsons by others or for the lack of information that is intentionally, unintentionally, or negligently withheld from Parsons by others.
- After acceptance of this report, if Parsons obtains information that it believes warrants further exploration and development, Parsons will endeavor to provide that information, but Parsons will not be liable for not doing so.

## **2.4 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT**

To achieve the study objectives stated in this report, Parsons based its conclusions on the best information available during the period of the investigation and within the limits prescribed by the ASTM Standard.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Professional judgment was exercised in gathering and evaluating the information obtained, and Parsons commits itself to the usual care, thoroughness, and competence of the engineering profession.

## **2.5 LIMITING CONDITIONS AND METHODOLOGY USED**

The Phase I Environmental Site Assessment investigations were completed in accordance with the ASTM Standard Practice E 1527-05.

## **2.6 USER RELIANCE**

This report was prepared for Ohana Military Communities, LLC, its Managing Member and other Members of Ohana Military Communities, LLC. It may be relied upon by Ohana Military Communities, LLC, its Managing Member and other Members of Ohana Military Communities, LLC, the United States of America, Department of the Navy,

(b) (4)  
[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED], and each of their respective officers, directors, employees, affiliates, successors, assigns, legal counsel and advisors.

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### **3.0 SITE DESCRIPTION**

#### **3.1 LOCATION AND LEGAL DESCRIPTION OF PROPERTY**

The Camp Smith Marine Family Housing Area is located at Latitude (North) 21.393121, Longitude (West) 157.905859. The site consists of 10 housing units for Marine personnel. There is no open access to the site; it is located within a secured base. Exhibit 2 provides a legal description of the property and a site survey map.

Ohana Military Communities, LLC will be the lessee of the site and will be the owner of 10 improvements, of which 10 will be demolished, and will be replaced with 10 newly constructed units.

#### **3.2 SITE AND VICINITY CHARACTERISTICS**

Table 3-1 provides a description of the properties directly adjacent to the site.

**Table 3-1  
Adjacent Properties**

<b>Direction</b>	<b>Description of Adjacent Properties</b>
North	The Camp Smith military facility continues further north and is mostly forest. In addition there are some residential properties off base across Halawa Heights Rd.
East	The eastern portion of the site consists of a small portion of the Camp Smith military facility and off base across Halawa Heights Rd. is residential housing.
South	The Camp Smith military facility continues further south and the area adjacent to the site is a hillside that is used for parking. .
West	The Camp Smith military facility continues further west and is mostly forest.

#### **3.3 DESCRIPTIONS OF STRUCTURES, ROADS, OTHER IMPROVEMENTS ON THE SITE**

The approximately 5.173-acre, 10 unit site is primarily occupied. One unit was available for inspection. The site is accessible via Halawa Heights Road.

The housing units are primarily single family homes with one duplex. The units were built in 1965 and 1970. The square footage of the units range from 1,268 to 1,971

square feet. The units have 3 or 4 bedrooms, and 2 to 3.5 bathrooms (Ohana, 2006). One unit was available for inspection.

Vehicle access to the housing units is via asphalt-paved streets. Typical landscaping bordering the housing units includes grass and trees. The housing units are primarily single family homes with one duplex. Residential parking is along the street on the lower level of houses and provided by attached carports for the upper level houses.

The housing unit construction is primarily cinder block with wood and cement used for porches. Roofing material included asphalt shingles.

### **3.4 INFORMATION REPORTED BY USER REGARDING ENVIRONMENTAL LIENS OR SPECIALIZED KNOWLEDGE OR EXPERIENCE**

#### **3.4.1 *Title Records***

The site is currently owned by the Federal government and managed by the Department of Defense. Declaration of taking by the United States government for military use was made on May 13, 1944.

#### **3.4.2 *Environmental Liens***

A chain of title was obtained for the site. No information regarding environmental liens was found against the site.

#### **3.4.3 *Specialized Knowledge or Experience***

Other than the information provided by the Department of the Navy contained herein, no specialized knowledge or experience was reported or discovered for the site.

#### **3.4.4 *Commonly Known or Reasonably Ascertainable Information***

Other than the information provided by the Department of the Navy contained herein, no information was reported concerning commonly known or reasonably ascertainable information.

#### **3.4.5 *Valuation Reduction for Environmental Issues***

No information was reported by Ohana Military Communities, LLC concerning valuation reduction for environmental issues.

#### **3.4.6 Owner, Property Manager, and Occupant Information**

Other than the information provided by the Department of the Navy contained herein, no information was reported concerning the owner, property manager, and occupants.

#### **3.4.7 Reason for Performing Phase I**

Ohana Military Communities, LLC is entering into a real estate transaction with the United States Navy. This Phase I is performed to allow Ohana Military Communities, LLC, consistent with good commercial and customary practice, to satisfy the all appropriate inquiry into the previous ownership and use of the property.

#### **3.4.8 Other**

No other information of environmental interest was provided by Ohana Military Communities, LLC.

### **3.5 CURRENT USES OF THE PROPERTY**

The site consists of 10 housing units for Marine personnel and is primarily occupied.

### **3.6 PAST USES OF THE PROPERTY**

Historical uses of the property were evaluated through review of databases searched by Track Info Services, LLC (TIS) and presented in an Environmental FirstSearch™ Report. The units were built in 1965 and 1970. As presented in the 1949 aerial photo (Section 4.4.1) four buildings are visible. No aerial photographs for the site, prior to 1949 were available and no additional data regarding the history of the site was available prior to 1949.

### **3.7 CURRENT AND PAST USES OF THE ADJOINING PROPERTIES**

Table 3-1 in Section 3.2, *Site and Vicinity Characteristics*, provides a description of the current uses of the adjoining properties. Historical aerial photographs indicate that the adjoining properties to the north, east and west were primarily undeveloped. Beginning in the 1970s, increased residential development is visible both further north and east of the site. Camp Smith is sited directly south of the residential buildings.

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## **4.0 RECORDS REVIEW**

This section presents information concerning the site and the surroundings from various recorded sources. Electronic databases representing standard environmental record sources and physical setting sources were reviewed. Information pertinent to the site is summarized in this section.

### **4.1 STANDARD ENVIRONMENTAL RECORD SOURCES, FEDERAL AND STATE**

Parsons has retained the services of an environmental database company to search applicable regulatory agency lists and standard environmental record sources to identify locations of potential concern within the ASTM Standard Practice E 1527-05 (Standard) minimum search distances. The following summarizes the environmental database report, dated February 12, 2006. Appendix A presents the complete environmental data report. The report includes maps indicating the search distance of 0.12, 0.25, 0.5, and 1 mile (0.2, 0.4, 0.8, and 1.6 kilometers [km]) from the center of the site, which include the ASTM database required search distances of zero, 0.125, 0.25, 0.5, and 1 mile (zero, 0.2, 0.4, 0.8, and 1.6 km).

The following subsections summarize sites listed within the respective database search distances. A search of the respective environmental databases identified 1 site within the ASTM-prescribed minimum search distances. The 4 remaining sites were not mapped by Environmental FirstSearch™ due to poor or inadequate location information. Exhibit 4 presents the location of the mapped sites relative to the site.

#### **4.1.1 Federal ASTM Records**

##### **National Priorities List**

The National Priorities List (NPL) listing, also known as the Superfund list, is a subset of the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) database. The NPL database identifies over 1,200 sites nationwide for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As a result, the environmental database company provides coverage for over 1,000 NPL site boundaries produced by the United States Environmental Protection Agency (USEPA) Environmental Photographic Interpretation Center.

Currently, there are no NPL sites within the 1-mile (1.6-km) search distance from the site.

### **Comprehensive Environmental Response, Compensation, and Liability Information System**

The CERCLIS database contains data on potentially hazardous waste sites that have been reported to USEPA by states, municipalities, private companies, and private persons.

Notification to USEPA is pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The CERCLIS database contains sites that are either proposed to be on or on the NPL, and sites that are in the screening and assessment phase for possible inclusion on the NPL.

Currently, there are no listed CERCLIS sites located within the 0.5-mile (0.8-km) search distance from the site.

### **CERCLIS – No Further Remedial Action Planned**

Beginning in February 1995, CERCLIS site designated No Further Remedial Action Planned (NFRAP) have been removed from the CERCLIS database. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action of NPL consideration. USEPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived these as historical records so that USEPA does not needlessly repeat the investigations in the future.

Currently, there are no listed CERCLIS-NFRAP sites located within the 0.5-mile (0.8-km) search distance from the site.

### **Resource Conservation and Recovery Act / Corrective Action Report**

The Corrective Action Report (RCRA COR) database identifies hazardous waste handlers with RCRA action activity. The database shows which nationally defined corrective action core events have occurred for every handler that has currently or previously had corrective action activity.

Currently, there are no listed RCRA COR sites in the database that are within the 1-mile (1.6-km) search distance from the site.

### **Resource Conservation and Recovery Act information System/Treatment, Storage, and/or Disposal**

The Resource Conservation and Recovery Act Information System/ Treatment, Storage and/or Disposal (RCRA TSD) database list identifies those facilities or locations that have notified USEPA of their activities relative to their onsite treatment, storage, and/or disposal of hazardous wastes. A listed site does not necessarily indicate environmental problems at the site but rather that the site is (or was) engaged in hazardous waste activities; therefore, it may have the potential to cause environmental degradation if hazardous wastes have been mishandled or otherwise released in an uncontrolled manner.

Currently, there are no RCRA TSD sites within the 0.5-mile (0.8-km) search distance from the site.

### **Resource Conservation and Recovery Act / Quantity Generators**

The Resource Conservation and Recovery Act Information System Sites / Quantity Generators (RCRA GEN) is a database of facilities that generate or transport hazardous waste or meet other RCRA requirements. Two categories of RCRA GEN are usually considered. Large Quantity Generators (LQGs) list identifies those facilities or locations that have notified USEPA that they generate (or have generated) at least 2,200 lbs (998 kg) of non-acutely hazardous wastes and/or 2.2 lbs (1 kg) of acutely hazardous waste, monthly. Small Quantity Generators (SQGs) list identifies those facilities or locations that have notified USEPA that they generate (or have generated) less than 2,200 lbs (998 kg) of non-acutely hazardous wastes and/or 2.2 lbs (1 kg) of acutely hazardous waste, monthly. A listed site does not necessarily indicate environmental problems on the site, but rather that the site is (or was) engaged in hazardous waste activities; therefore, it may have the potential to cause environmental degradation if hazardous wastes have been mishandled or otherwise released in an uncontrolled manner.

Currently, there are no listed RCRA GEN sites within the 0.25-mile (0.4 km) search distance from the site.

### **Resource Conservation and Recovery Act / No Longer Report**

The Resource Conservation and Recovery Act Information Sites / No Longer Report (RCRA NLR) is a database of facilities not currently classified by the USEPA but is still included in the RCRIS database. The reasons for non classification are: (1) Failure to report in a timely matter; (2) No longer in business at the listed address, and/or (3) No longer generating hazardous waste materials in quantities which require reporting.

Currently, there are no listed RCRA NLR sites within the 0.12-mile (0.2 km) search distance from the site.

### **Emergency Response Notification System**

The Emergency Response Notification System (ERNS) is a USEPA national computer database system that is used to store information on the sudden and/or accidental release of hazardous substances, including petroleum, into the environment. The ERNS reporting system contains preliminary information on specific releases, including the spill location, the substance released, and the responsible party. The ERNS report only includes releases from 1988 to the most recent quarterly update.

Currently, there are no ERNS sites within the 0.12-mile (0.2 km) search distance from the site.

### **National Pollutant Discharge Elimination System**

The National Pollutant Discharge Elimination System (NPDES) is a database of permitted facilities receiving and discharging effluents to and from a natural source where treatment of the effluent is monitored.

Currently, there are no NPDES sites with the 0.25-mile (0.4 km) search distance from the site.

### **Facility Index System**

The Facility Index System (FINDS) is a database maintained by USEPA/National Technical Information Service that contains both facility information and "pointers" to other sources or more detailed information. The FINDS is the index of identification numbers associated with a property or facility which the USEPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the USEPA office that may have files on the site or facility. A Facility Registry System (FRS) site has an FRS in the status field.

Currently, there are no FINDS sites within the 0.25-mile (0.4-km) search distance from the site.



### **Toxic Release Inventory System**

The Toxic Release Inventory System (TRIS) is a USEPA database that identifies all facilities that have had or may be prone to toxic material releases.

Currently, there are no TRIS sites within the 0.25-mile (0.4-km) search distance from the site.

### **Wetlands**

The US Fish and Wildlife Service maintains a National Wetlands Inventory (NWI) database of information summarizing characteristics, extent, and status of the Nation's wetlands and deepwater habitats. This database is available for select areas of the United States.

Currently, there are no wetlands within the 0.5-mile (0.8-km) search distance from the site.

### **Floodplains**

The Floodplains is a database maintained by the Federal Emergency Management Agency which summarizes 100 year and 500 year floodplain boundaries for select counties in the United States.

Currently, there are no Floodplain sites within the 0.5-mile (0.8-km) search distance from the site.

### **Receptors**

The sensitive receptors are listed by the 2002 Census Bureau's TIGER (Topologically Integrated Geographic Encoding and Referencing System), from the US Department of Commerce. This database summarizes all schools and hospitals that may house individuals deemed sensitive to environmental discharges due to their fragile immune systems.

Currently, there are no receptors listed within the 0.12-mile (0.2-km) search distance from the site.

## **Nuclear Permits**

The Nuclear Regulatory Commission of the Environmental Protection Agency maintains a database of permitted nuclear facilities (RADINFO). This database provides basic information about facilities that are permitted and regulated for their use and handling of radioactive materials.

Currently, there are no Nuclear Permits on record within the 0.5-mile (0.8-km) search distance from the site.

### **4.1.2 State of Hawaii ASTM Records**

#### **Underground Storage Tanks**

The Underground Storage Tanks (REG UST/AST) is a database identifying underground and aboveground storage tanks in the state of Hawaii. This database is maintained by the HDOH.

Currently, there are no REG UST/AST sites listed within the 0.25-mile (0.4-km) search distance from the site.

#### **Leaking UST**

The Leaking Underground Storage Tanks is a database identifying underground and above ground storage tanks that have been leaking, and is maintained by the HDOH.

Currently, there are no Leaking UST sites within the 0.5-mile (0.8-km) search distance from the site.

### **4.1.3 Non-ASTM Supplemental Records**

#### **Historic/Landmark**

The National Park Service maintains a National Registry of Historic Places database. This database contains the Nation's official list of cultural resources worthy of preservation. Properties listed include districts, sites, buildings, structures, and objects that are significant in American history, architectures, archeology, engineering, and culture.

Currently, there are no Historic/Landmark sites within the 0.5-mile (0.8-km) search distance from the site.

### **Federal Land Use**

The Federal Lands of the United States is a database of lands owned or administered by the Federal Government, including the Bureau of Land Management, the Bureau of Reclamation, the US Department of Agriculture Forest Service, the Department of Defense, the US Fish and Wildlife Service, the Tennessee Valley Authority, and other agencies. Only areas of 640 acres or more are included in this listing. The database provides descriptive information that includes name and type of the Federal land and the administering agency. Indian Lands of the United States is a database of areas administered by the Bureau of Indian Affairs and exceeding 640 acres in size. This database includes Federally-administered lands within a reservation which may or may not be considered part of the reservation. Endangered Species Protection Program is a database that provides a list of the Endangered Species by county and the species status.

The site is considered a Federal Land Use site. Because designation as a Federal Land Use site simply indicates that the Federal Government owns and/or operates the land, this site does not constitute a REC to the site.

### **Federal Wells**

The US Geological Survey maintains a database of more than 850,000 records of wells, springs, test holes, tunnels, drains, and excavations in the United States. This database is an inventory of the United States Groundwater Sites. These are historic potable water production well that do not impact the site.

Currently, there are no Federal Wells sites within the 0.5-mile (0.8-mile) search distance from the site.

### **Releases (Air/Water)**

The USEPA has a list of Air and Surface Water Releases. This list is a subset of the ERNS-National Response System database detailing sites that have impacted only the air or surface water.

Currently, there are no Releases (Air/Water) sites within the 0.12-mile (0.2-km) search distance from the site.

### **Hazardous Materials Incident Response System**

The Hazardous Materials Incident Response System (HMIRS) is a database of information regarding materials, packaging, and a description of events for tracked incidents.

Currently, there are no HMIRS sites within the 0.12-mile (0.2-km) search distance from the site.

### **National Compliance Data Base System**

The National Compliance Data Base System (NCDB) is a database of regional compliance and enforcement activity and manages the Pesticides and Toxic Substances compliance and Enforcement program at a national level. The system tracks all compliance monitoring and enforcement activities from the time an inspector conducts an inspection until the time the inspector closes the case or settles the enforcement action. NCDB is the national repository of the 10 regional and Headquarters FIFRA/TSCA Tracking System (FTTS). Data collected in the regional FTTS is transferred to NCDB to support the need for monitoring national performance of regional programs.

Currently, there are no NCDB sites within the 0.25-mile (0.4-km) search distance from the site.

### **PADS**

The USEPA maintains a database of PCB handlers. This database includes PCB generators, transporters, storers and/or disposers that are required to register with the USEPA. This database indicates the type of handler and registration number. Also included is the PCB Transformer Registration Database.

Currently, there are no PADS sites within the 0.25-mile (0.4-km) search distance from the site.

### **Federal Other**

Section Seven Tracking System (SSTS) within the USEPA maintains a database of registration and production data for facilities which manufacture pesticides. Aerometric Information Retrieval System (AIRS) is another database of detailed information

pertaining to sites which submit air emissions reports. Developed under the Clean Air Act, this database also maintains data on compliance status and enforcement actions.

Currently, there is no Federal Other site within the 0.25-mile (0.4-km) search distance from the site.

## **Towers**

Towers is a database that encompasses three sources of information from the Federal Aviation Administration (FAA) and the Federal Communication Commission (FCC). FAA data includes the Digital Obstacle File which contains obstruction data for man made objects that affect domestic aeronautical charting products. FCC data includes the Wireless Telecommunication Bureau's Universal Licensing System which contains the Antenna Structure Database and the Cellular Tower Database. FCC data also includes the Mass Media Bureau's Consolidated database System which includes engineering data for AM, FM, and Television broadcasting stations.

Currently, there are no Towers within the 0.25-mile (0.4-km) search distance from the site.

## **Radon**

The USEPA collected radon data from the 1990-1991 national radon project. This project collected data for a variety of zip codes across the United States. The radon data listed here is based on the radon data collected for this site's zip code.

Based on available documents, a radon gas assessment has not been conducted on the site. Radon information for the Hawaiian Islands indicates that the USEPA has categorized Hawaii as Zone 3 for radon. A Zone 3 classification is for areas with indoor average radon levels of less than to 2 picoCuries/liter (pCi/L). This is below the USEPA radon recommended action level (RAL) of 4 pCi/L.

## **4.2 ENVIRONMENTAL AGENCY RECORDS**

Findings from the environmental database review did not reveal any RECs resulting in the need for further review of agency records.

## **4.3 NAVY RECORDS AND DOCUMENTS**

### **4.3.1 *Environmental Baseline Survey and the Site Summary Report***

Application of waste oil as a dust suppressant along the road ways within the vicinity of the site may have occurred, potentially resulting in a pre-existing condition. This was

reported to have been a common practice at other military installations (DON, 2006). Since no documentation can be found to support that this practice occurred at Camp Smith, it is the opinion of the EP that this does not constitute a REC for the site.

#### **4.3.2 Integrated Natural Resources Management Plan**

The Marine Corps Base Hawaii Integrated Natural Resources Management Plan and Environmental Assessment (MCBH INRMP/EA, 2001) served as a reference for endangered species data in the Camp Smith area.

The Hawaiian endemic short-eared owl, pueo (*Asio flammeus sandwichensis*), listed as endangered by the State of Hawaii for the island of O'ahu, may occasionally use the open areas of Camp Smith for hunting and loafing. There are no other known Federal or State listed, proposed or candidate threatened or endangered species associated with Camp Smith. There is a remnant native forest bird community in the forest above Camp Smith that includes 'amakihi (*Hemignathus chloris*) and 'apapane (*Himatione sanguinea*). These species are found at higher elevations but may descend to the mixed species forests of introduced and native trees at Camp Smith. The O'ahu 'elepaio (*Chasiempis sandwichensis*) recently was listed under the Endangered Species Act, but has not been recorded at Camp Smith. The proposed 'elepaio critical habitat boundary does not include Camp Smith.

#### **4.3.3 Asbestos Management Plans**

An asbestos assessment for the site was completed in March of 1996 by the Department of the Navy Public Works Center. The assessment identified presence of ACM in sheet vinyl, floor tile and mastic, and assumed present in roofing material. This constitutes a REC for the site.

#### **4.3.4 Lead-Based Paint Management Plans**

A lead assessment conducted in 1997 confirmed the presence of LBP at the site exceeding current action limits (Navy Public Works Center, 1997). The assessments identified the presence of lead in paint, interior dust, and exterior soil. Results of the lead assessment for the site indicate that lead was found in paint on doors, windows, walls, moldings, ceilings, baseboards, closets, and exterior components, exceeding current HUD/USEPA Guidance action limit of 1.0 mg/ cm<sup>2</sup>. Lead levels in dust samples did not exceed the HUD/USEPA Guidance action levels of 40 µg/ft<sup>2</sup> for floors, 250 µg/ft<sup>2</sup> for window sills, and 400 µg/ft<sup>2</sup> for window wells. Soil samples at the site were not found to exceed current HUD/USEPA Guidance action level of 400 ppm. This constitutes a REC for the site.

Another lead assessment was conducted in 2006. This assessment also confirmed the presence of LBP at the site exceeding current action limits (NAVFAC, 2006). The assessments identified the presence of lead in paint, interior dust, and exterior soil. Results of the lead assessment for the site indicate that lead was found in paint on the following (1) interior components: attic access panels, baseboards, closet casings, closet doors, closet shelves, crown moldings, door casings, rafters, shower walls, sliding doors and casings, and walls; and (2) exterior components: doors, door casings, eaves, fascia, rafters, sliding door casings, storage doors, upper trims, and attic vents, exceeding current HUD/USEPA Guidance action limit of 1.0 mg/cm<sup>2</sup>. Lead levels in dust samples did not exceed the HUD/USEPA Guidance action levels of 40 µg/ft<sup>2</sup> for floors, 250 µg/ft<sup>2</sup> for window sills, and 400 µg/ft<sup>2</sup> for window wells. Soil samples at the site were not found to exceed current HUD/USEPA Guidance action level of 400 ppm. LBP constitutes a REC for the site.

#### **4.4 PHYSICAL SETTINGS SOURCE(S)**

##### **4.4.1 USGS Topographic Map**

Exhibit 3 presents the location of the site on a USGS topographic map.

##### **4.4.2 Geological, Hydrogeological, and Meteorological Review**

###### **Geology**

The island of O'ahu originated from the remnants of two shield volcano mountain ranges, with the older Waianae Mountain Range on the west and the younger Koolau Range on the east. A series of sea level changes, volcanic eruptions (lava flows and cinder cones), subsidence events and erosional events resulted in the present-day configuration. The site area formed during a period of subsidence for the Waianae and Koolau Ranges, concurrently with the deposition of terrigenous sediments from the ranges and changes in sea level. The site is located in an area of multiple drowned river valleys (Macdonald, 1983). Geologic formations in the area include coral reef deposits, sedimentary lagoonal deposits, sedimentary marine deposits and underlying basalt flows.

###### **Hydrogeology**

Groundwater resources in the site area include shallow perched and basal (fresh water in contact with sea water) aquifers beginning at elevations close to mean sea level. Two aquifer types are present: upper basal (fresh water in contact with sea water) unconfined aquifers in sedimentary deposits and lower basal confined aquifers in flank deposits (horizontally extensive lavas). Upgradient a single aquifer type is present. This aquifer type is basal, unconfined and occurs in flank deposits (Mink and Lau, 1990).

## **Meteorology**

The site is located within the Kalihi area of O'ahu. Meteorological studies and investigations from a weather station located at the Honolulu International Airport have indicated that the average high of 88.1 degrees Fahrenheit (°F) occurs during the summer months and a low of 65.7°F occurs in the winter months. The average annual maximum temperature is 84.0°F. Very little rainfall or no rainfall at all occurs during the summer months. Rainfall typically occurs from October through April, providing an average annual rainfall of 20.7 inches (0.53 m) of rain (WRCC, 2006).

## **4.5 HISTORICAL USE INFORMATION**

### **4.5.1 Aerial Photographs**

Copies of aerial photographs of the site and surrounding areas were obtained for the years 1949, 1952, 1965, 1972, 1993 and 2003 from TIS. These photographs are presented in Appendix B. The following historical information was identified on the aerial photographs:

1949 and 1952: Four buildings are visible. Surrounding properties to the north, east and west continue to be undeveloped. To the south and southeast, the Camp Smith buildings are clearly visible.

1965: All nine residential buildings are visible. With the exception of Camp Smith to the south and southeast, all surrounding properties continue to be undeveloped.

1972: All nine residential buildings, located on the site, are visible. Surrounding properties immediately to the north, east and west continue to be undeveloped. Substantial residential development is visible further north. To the south and southeast, the Camp Smith buildings are clearly visible.

1993: The residential buildings located on the site are not visible, likely due to growth of surrounding vegetation. Additional residential development is visible immediately east of the site.

2003: The residential buildings located on the site are only partially visible, likely due to growth of surrounding vegetation. The surrounding properties are substantially similar to those observed in the 1993 aerial photograph.

### **4.5.2 Historic Topographic Maps**

Copies of historic topographic maps of the site and surrounding areas were obtained for the years 1959, 1968, 1983 and 1998 from TIS. These maps are presented in Appendix C. The site development as recorded on the historic topographic maps is closely aligned



with the development presented in the historical aerial photographs. The residential development, north of the site, is identified as the Aiea Homesteads on the topographic maps.

#### **4.5.3 Fire Insurance Maps**

Sanborn® fire insurance maps were not available for the site.

#### **4.5.4 Recorded Land Title Records**

The site is currently owned by the Federal government and managed by the Department of Defense. Declaration of taking by the United States government for military use was made on May 13, 1944.

#### **4.5.5 Building Department Records**

The site is currently owned by the Federal government and managed by the Department of Defense. Parsons coordinated with the Navy during the site reconnaissance and records search. Information regarding date of construction and subsequent modifications to structures was reviewed and incorporated into this assessment from information provided by the Navy, available on the Internet and other documents provided by the Design contractor.

#### **4.5.6 Zoning/Land Use Records**

The zoning designation for the site is F-1, Military and Federal.

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## **5.0 INFORMATION FROM SITE RECONNAISSANCE AND INTERVIEWS**

Parsons conducted reconnaissance of the site on March 3, 2006. The site is primarily occupied and serves as residential housing. One unit was available for inspection.

### **5.1 HAZARDOUS SUBSTANCES IN CONNECTION WITH IDENTIFIED USES**

During the site reconnaissance, hazardous substances were not observed at the site.

### **5.2 HAZARDOUS SUBSTANCE CONTAINERS AND UNIDENTIFIED SUBSTANCE CONTAINERS**

No containers were identified during the site reconnaissance.

### **5.3 STORAGE TANKS**

During the site reconnaissance, there were no storage tanks observed at the site.

### **5.4 INDICATIONS OF PCBS**

During the site reconnaissance, overhead power transformers and fluorescent lighting that may contain PCBs were observed in various locations of the property. Regarding the power transformers, PCB-free labels were observed.

Regarding fluorescent lighting, the majority of lights was of a newer, ballast-free design and is likely to be PCB-free. However, older fixtures were observed. It is recommended that potential PCB-containing ballasts be properly managed, during demolition and/or renovation. This constitutes a REC for the site.

### **5.5 INDICATIONS OF ASBESTOS**

During the site reconnaissance, suspect ACMs were noted in the following building materials: roof tar, sink undercoating and mastic for tiling and vinyl sheeting. This constitutes a REC for the site.

### **5.6 INDICATIONS OF SOLID WASTE DISPOSAL**

During the site reconnaissance, minimal domestic trash (litter) was observed.

## **5.7 PHYSICAL SETTING ANALYSIS, IF MIGRATING HAZARDOUS SUBSTANCES ARE AN ISSUE**

Section 4.1 summarizes potential concerns regarding nearby sites that may have an impact on the site and Section 4.3 summarizes the physical setting.

## **5.8 WETLANDS AND FLOODPLAINS**

No wetlands or floodplains were observed during the site reconnaissance.

## **5.9 LEAD**

During the site reconnaissance exterior and interior paint conditions were observed to be good to fair (i.e. chipping); and interior wood components (e.g. door and window casings, ceiling moldings, closets and associated shelving) were noted as original features likely containing LBP. This is a REC for the site.

## **5.10 ENDANGERED SPECIES AND SENSITIVE ENVIRONMENTS**

### ***5.10.1 Endangered Species***

No endangered species were observed during the site reconnaissance.

### ***5.10.2 Sensitive Environments***

No sensitive environments were observed during the site reconnaissance.

## **5.11 INTERVIEWS**

### ***5.11.1 Military Organizations***

(b) (6), Director of Family Housing and (b) (6), Building Maintenance Supervisor for the Marine Corps Base Hawaii were interviewed.

### ***5.11.2 Hawaii Department of Health***

The Hawaii Department of Health (HDOH) maintains a database of Activity and Use Limitations (AULs). The database was queried to determine if the subject property has any recorded AULs. No AULs were recorded. However, the database is still under development and according to HDOH representatives (b) (6) and (b) (6), August 8, 2006), this may indicate that the site is currently under evaluation for applicable restrictions. The HDOH representative also indicated that the primary source of information for the database for military family housing sites is the

Finding of Suitability (FOS) report (Parsons, 2006). The FOS was reviewed and it was determined that there are no AULs for the subject site (DON, 2006).

#### **5.12 OTHER CONDITIONS OF CONCERN**

No indications of termite infestation were observed during the site reconnaissance. Historically chlordane containing pesticides have been used in the management of termite infestation, typically applied during construction of homes under slabs and around the foundations. Chlordane is a persistent pesticide with a half life of approximately 4 years, and can persist in soil over 20 years. Due to the historic use of chlordane in homes, chlordane may exist in the soil near the foundation and under the building slabs. This is a REC for the site.

Possible mold was observed on the exterior porch/closets of the unit inspected. It is not uncommon to find mold growth in humid places, such as bathrooms. Mold growth can be prevented by eliminating the moisture source and remediated by thoroughly cleaning the affected area with a non-ammonia detergent and drying the affected area. The potential for mold is not an REC because it does not occur from the release or threat of a release of a hazardous material but from conditions conducive to the growth of mold, such as the presence of moisture. Ohana Military Communities, LLC will remediate conditions of mold in accordance with the Mold Prevention and Remediation Plan.

Based on observation during the site reconnaissance, interior walls and ceilings of some housing units may consist of canec boards. Canec board, a particle board made from sugarcane bagasse (fibrous residue after sugar is extracted from sugarcane), was manufactured in sheets similar in size to gypsum board and treated with calcium arsenate and arsenic acid to prevent termite and other insect infestation. Canec may contain arsenic at levels requiring handling and disposal as a hazardous waste. This is a REC for the site.

Smoke detectors in older units have the potential to contain a radioactive source. Prior to demolition and/or renovation, smoke detectors should be inspected for a radioactive source, and handled and disposed of accordingly. This is a REC for the site.

Light switches and lamps in older units have the potential to contain mercury. During demolition and/or renovation, these switches and lamps should be removed and disposed of properly. This is a REC for the site.

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## **6.0 FINDINGS**

### **6.1 FINDINGS SUMMARY**

In conclusion, based upon the definition of a REC in the ASTM Standard Practice E 1527-05, the following RECs have been identified for the site:

- During the site reconnaissance, suspect ACMs were noted in the following building materials: roof tar, sink undercoating and mastic for tiling and vinyl sheeting. According to an asbestos assessment prepared by the Navy Public Works Center, ACM is present in some units in sheet vinyl, floor tile and mastic, and assumed present in roofing material. It is recommended that the presence of ACM be disclosed to prospective tenants. It is also recommended that during demolition activities, the ACM Management Plan be followed.
- Lead assessments conducted in 1997 and 2006 confirmed the presence of LBP at the site exceeding current action limits (Navy Public Works Center, 1997 and NAVFAC, 2006). It is recommended that the presence of LBP be disclosed to prospective tenants. Also, it is recommended that the LBP Management Plan be followed during demolition activities. It is recommended that LBP waste be tested for TCLP prior to disposal.
- During the site reconnaissance, fluorescent lighting that may contain PCB-containing ballasts was observed in various locations of the property. The majority of lights were of a newer, ballast-free design and are likely to be PCB-free. However, older fixtures were observed. It is recommended that potential PCB-containing ballasts be properly managed during demolition and/or renovation.
- Due to the historic use of chlordane as a termiticide in homes, chlordane may exist in the soil near the foundation and under the building slabs. Surface and near-surface soil sampling for chlordane and other pesticides, including DDT, dieldrin, and heptachlor, is recommended.
- Based on observation during the site reconnaissance, canec board may comprise the interior walls and ceilings of some housing units. Canec may contain arsenic at levels requiring handling and disposal as a hazardous waste. It is recommended that interior walls and ceilings that are suspected to be canec board be sampled for total arsenic using the toxic characteristic leaching procedure (TCLP) to determine proper handling and disposal requirements.

- Smoke detectors in older units have the potential to contain a radioactive source. Prior to demolition, smoke detectors should be inspected for a radioactive source, and handled and disposed of accordingly.
- Light switches and lamps in older units have the potential to contain mercury. During demolition, these switches and lamps should be removed and disposed of properly.



## **7.0 OPINION**

Based on the findings of our assessment, Parsons provides the following opinions on the observed conditions:

The following RECs have been identified for the site:

- ACM - According to an asbestos assessment prepared by the Department of the Navy Public Works Center, ACM is present in some units in sheet vinyl, floor tile and mastic, and assumed present in roofing material. It is the opinion of the environmental professional (EP) that although the ACM is contained and does not present a risk to tenants, it is recommended that the presence of ACM be disclosed to prospective tenants. It is also recommended that during demolition activities, the ACM Management Plan be followed.
- LBP - Lead assessments conducted in 1997 and 2006 confirmed the presence of LBP at the site exceeding current action limits (Navy Public Works Center, 1997 and NAVFAC, 2006). It is the opinion of the EP that although the LBP does not present a risk to tenants, it is recommended that the presence of LBP be disclosed to prospective tenants. Also, it is recommended that the LBP Management Plan be followed during demolition activities. It is recommended that LBP waste be tested for TCLP prior to disposal.
- PCB-containing ballasts - It is the opinion of the EP that older fixtures observed at the site may contain PCB-containing ballasts. Although they pose no risk to residents, potential PCB-containing ballasts should be properly managed, during demolition and/or renovation.
- Pesticides - Due to the historic use of chlordane as a termiticide in homes, it is the opinion of the EP that chlordane and other pesticides may have been employed at the site for pest control. As a result, surface and near-surface soil sampling for chlordane and other pesticides, including DDT, dieldrin, and heptachlor, is recommended.
- Arsenic - It is the opinion of the EP that canec board may comprise the interior walls and ceiling of some of the housing units. Canec may contain arsenic at levels requiring handling and disposal as a hazardous waste. As a result, it is the opinion of the EP that interior walls and ceilings that are suspected to be canec board be sampled for total arsenic (TCLP) to determine proper handling and disposal requirements.
- Radioactive source - It is the opinion of the EP that smoke detectors in older units have the potential to contain a radioactive source. Although the smoke

detectors pose no risk to residents, they should be inspected for proper handling and disposal. Prior to demolition and/or renovation, smoke detectors should be inspected for a radioactive source, and handled and disposed of accordingly.

- Mercury – It is the opinion of the EP that switches in older units have the potential to contain mercury. Although mercury switches pose no risk to residents, during demolition, these should be removed and disposed of properly.

The EBS reports that the application of waste oil as a dust suppressant along the road ways within the vicinity of the site may have occurred, potentially resulting in a pre-existing condition. This was reported to have been a common practice at other military installations. Since no documentation can be found to support that this practice occurred at the site, it is the opinion of the EP that this does not constitute a REC for the site.

It is the opinion of the EP that potential mold growth is not a REC. It is not uncommon to find mold growth in humid places, such as bathrooms. Mold growth can be prevented by eliminating the moisture source and remediated by thoroughly cleaning the affected area with a non-ammonia detergent and drying the affected area. The potential for mold is not an REC because it does not occur from the release or threat of a release of a hazardous material but from conditions conducive to the growth of mold, such as the presence of moisture. Ohana Military Communities, LLC will remediate conditions of mold in accordance with the Mold Prevention and Remediation Plan.

## **8.0 CONCLUSIONS**

Parsons has conducted this Phase I Environmental Site Assessment in accordance with the American Society for Testing and Materials Standard Practice E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Assessment Process* of the Camp Smith Marine Family Housing Area located in the Aiea Area of O'ahu, Hawaii. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property except for the following:

### **8.1 GENERAL CONCLUSIONS**

Per the findings above, the following RECs were identified for the site: (1) ACM, (2) LBP, (3) PCB-containing ballasts, (4) smoke detectors, (5) mercury switches in housing units and associated structures, (6) arsenic in canec, and (7) chlordane and other pesticides, including DDT, dieldrin, and heptachlor, in soils.

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## **9.0 DEVIATIONS AND DATA GAPS**

### **9.1 DEVIATIONS**

Photographs were not taken during the course of the site reconnaissance.

### **9.2 DATA GAPS**

Data is not presented in the following report sections:

#### **3.4.5 Valuation Reduction for Environmental Issues**

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## **10.0 REFERENCES**

### **10.1 REFERENCES**

Aquifer Identification and Classification for Oahu: Groundwater Protection Strategy for Hawaii, Mink, John F. and Lau, Stephen L., February 1990 (Revised).

Headquarters Engineering and Construction News *World Class Technical Capabilities*, Volume 3, Number 9, U.S. Army Corps of Engineers, June 2001.

Asbestos Management Plan Camp Smith, USMC-PH. Navy Public Works Center-Pearl Harbor. March 1997

Asbestos Management Plan Camp Smith, Navy-PH. Navy Public Works Center-Pearl Harbor. March 1997

Draft Finding of Suitability for Public Private Venture Action, Various Marine Corps Base Hawaii Housing Areas: MCBH Kaneohe Bay, MCBH Camp H.M. Smith and MCBH Manana Family Housing Areas, Oahu, Hawaii for Naval Facilities Engineering Command Pacific Division. April 2006.

Draft Report Environmental Baseline Survey for Public Private Venture Action, Various Marine Corps Base Hawaii Housing Areas: MCBH Kaneohe Bay, MCBH Camp H. M. Smith and MCBH Manana Family Housing Areas, Oahu, Hawaii. April 2006.

Final Finding of Suitability for Public Private Venture Action, Various Marine Corps Base Hawaii Housing Areas: MCBH Kaneohe Bay, MCBH Camp H.M. Smith and MCBH Manana Family Housing Areas, Oahu, Hawaii for Naval Facilities Engineering Command Pacific Division. August 2006.

Final Report Environmental Baseline Survey for Public Private Venture Action, Various Marine Corps Base Hawaii Housing Areas: MCBH Kaneohe Bay, MCBH Camp H. M. Smith and MCBH Manana Family Housing Areas, Oahu, Hawaii. August 2006.

Lead Management Plan Camp Smith, USMC-PH. Navy Public Works Center-Pearl Harbor. March 1997

Lead Management Plan Camp Smith, Navy-PH. Navy Public Works Center-Pearl Harbor. July 1997

Final Lead Survey Report / Lead Risk Assessment Report, Camp Smith Housing Area, Marine Corps Base Hawaii, Aiea, Hawaii. June 2006.

Ohana Repair Cost and Inventory Database. Ohana Military Communities, LLC, Hawaii. August 2006.

Marine Corps Base Hawaii Integrated Natural Resources Management Plan and Environmental Assessment, November 2001.

Personal communication between (b) (6) and (b) (6) of Hawaii Department of Health and (b) (6) and (b) (6) of Parsons. August 8, 2006.

Personal communication between (b) (6) and (b) (6) of the Marine Corps Base Hawaii and (b) (6) and (b) (6) of Parsons. August 8, 2006.

TIS. Environmental FirstSearch™ Report. February 12, 2006.

TIS. Historical Aerial Photograph Report February 21, 2006.

TIS. Historical Topographic Map Report. March 6, 2006.

Volcanoes in the Sea, The Geology of Hawaii, Second Ed., Macdonald et. al., 1983.



## **11.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)**

Parsons declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 of Title 40, Code of Federal Regulations (CFR), Part 312 dated 1 November 2005.

We have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all appropriate inquires in conformance with the standards and practices set forth in 40 CFR 312.

Signature:

Date:

(b) (6)

September 2006

(b) (6), P.E.

(b) (6)

September 2006

(b) (6), P.E.

(b) (6)

September 2006

(b) (6)

(b) (6)

September 2006

(b) (6)

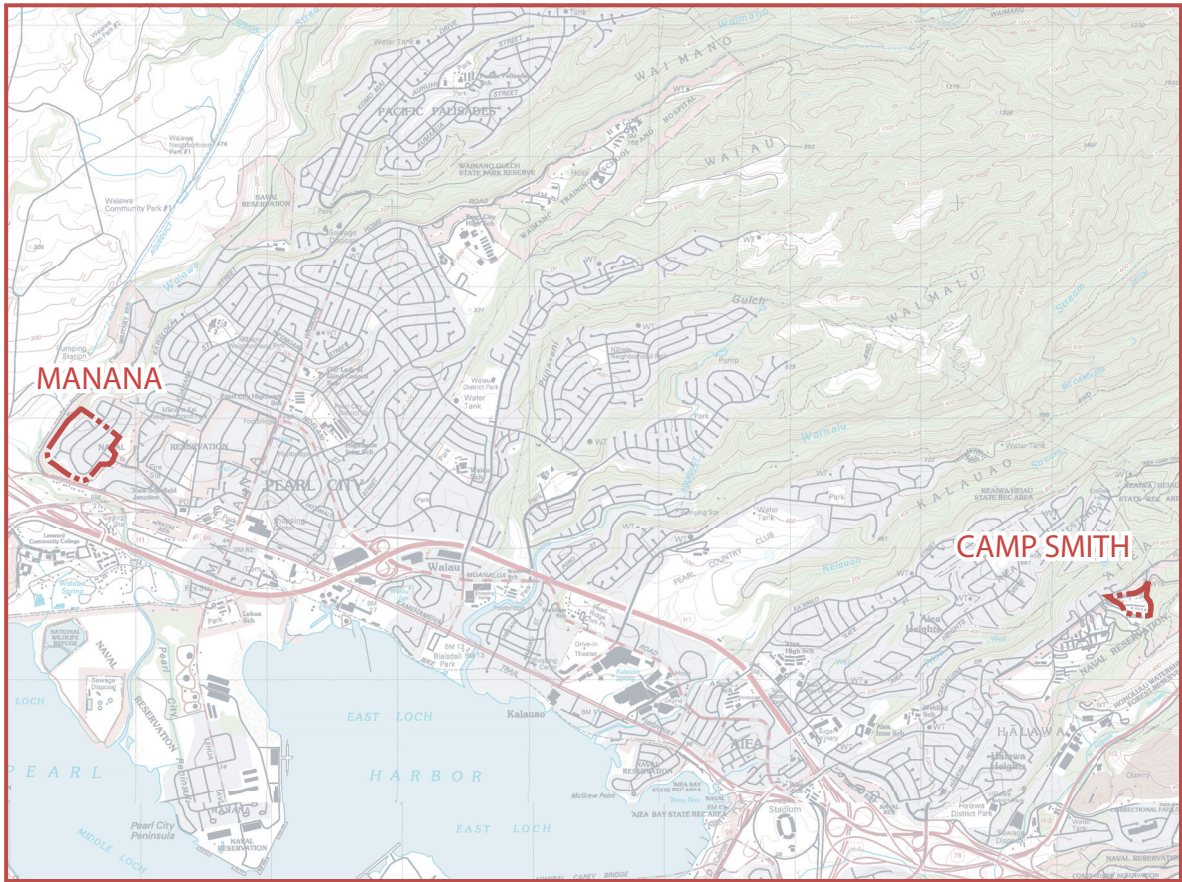
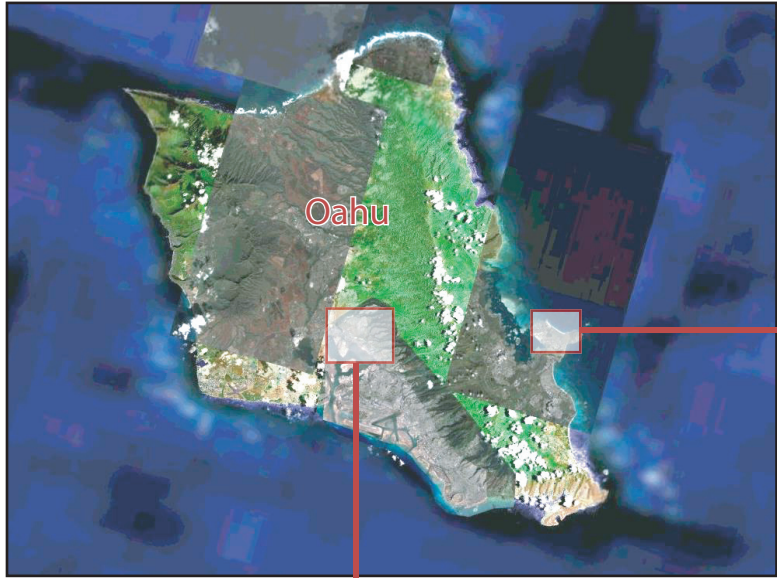
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## **12.0 QUALIFICATION(S) OF ENVIRONMENTAL PROFESSIONAL(S)**

<b>Name</b>	<b>Degree</b>	<b>Years of Experience</b>	<b>Project Responsibilities</b>
(b) (6), P.E.	M.S., Chemical Engineering	28	Site reconnaissance, data review and report preparation
(b) (6), P.E.	M.S., Chemical Engineering	27	Site reconnaissance, data review and report preparation
(b) (6)	B.A., Environmental Studies	5	Site reconnaissance, data review and report preparation
	B.A., Anthropology		
(b) (6)	B.S., Chemical Engineering	3	Site reconnaissance, data review and report preparation

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EXHIBIT 1  
SITE MAP

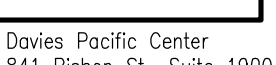


MARINE SITES CONTEXT  
Overall Location Map

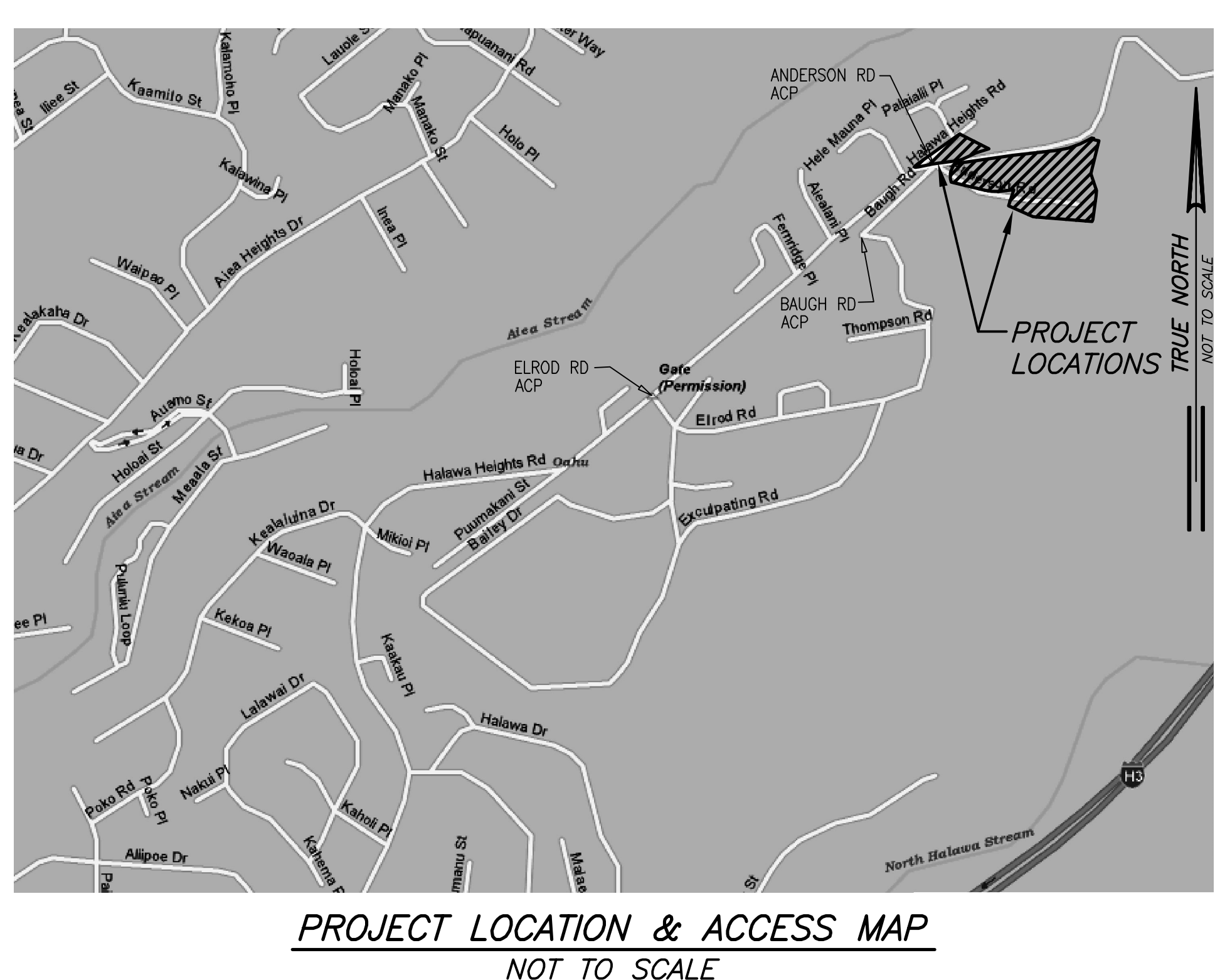
Honolulu, Hawaii

EXHIBIT 2  
SITE SURVEY MAP









1. Azimuths & Coordinates are referred to Government Survey Triangulation Station "SALT LAKE".
2. Map is compiled from records found at the State Survey Office, Real Property Tax Mapping Branch and Bureau of Conveyances.

ACP	Access Control Point
△	Government Survey Triangulation Station
P.O.B.	Point of Beginning
SQ.FT.	Square Feet
—E—	Electric Utility
—W—	Water Line
—S—	Sewer Line

*"CAMP SMITH HOUSING"*  
*BEING A PORTION OF R.P. GRANT 6717,*  
*L.C. AW. 7712 TO M. KEKUANAOA*  
*AND L.C. AW. 8516-B TO KAMEIKUI*

HALAWA, EWA, OAHU, HAWAII  
TAX MAP KEY: (1ST DIV.) 9-9-10: PORTION 07

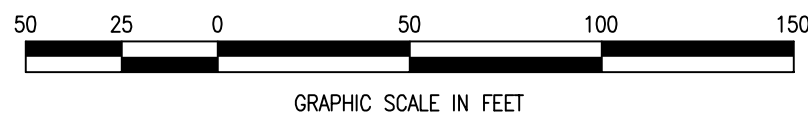
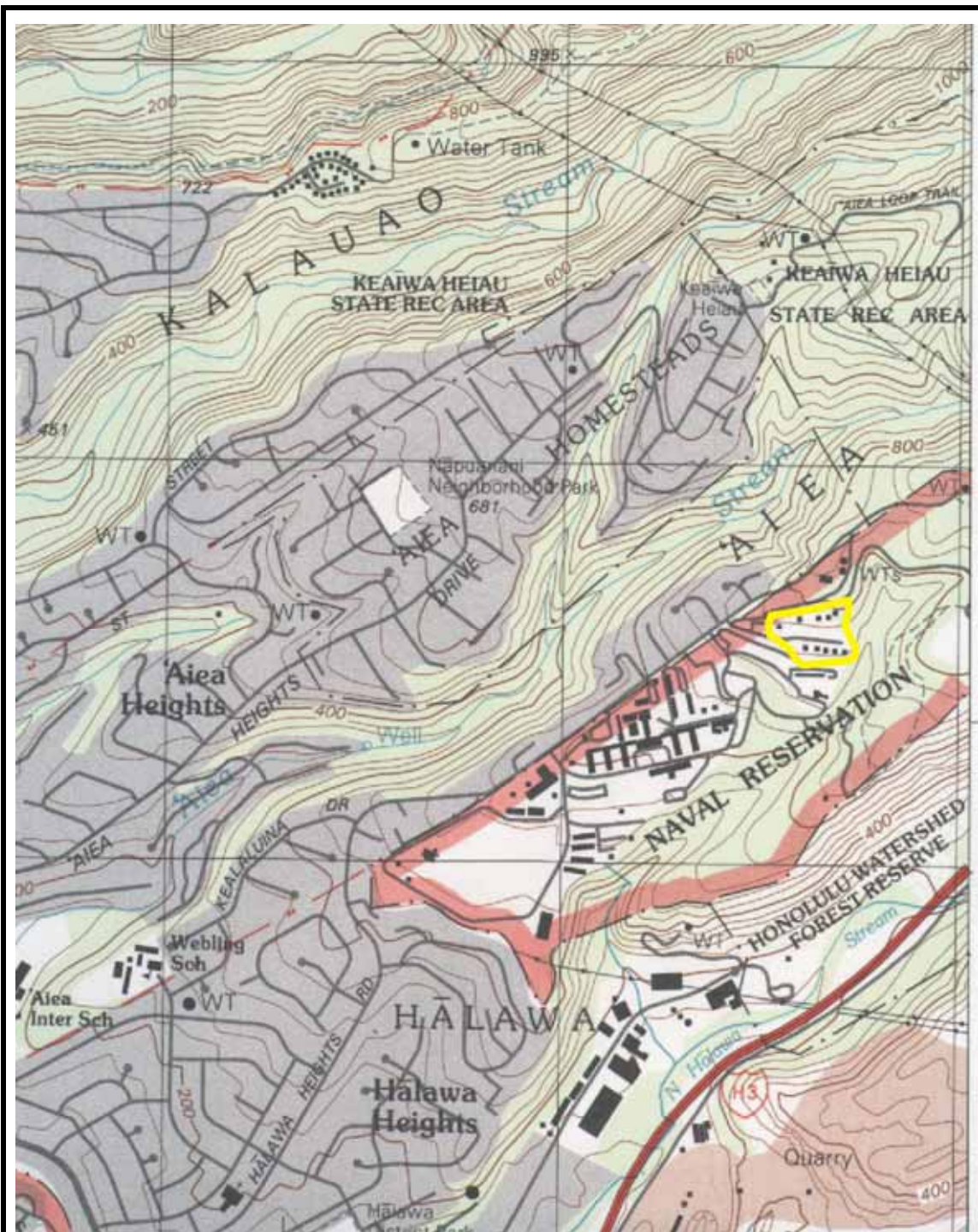


EXHIBIT 3  
SITE TOPOGRAPHICAL MAP



Site Boundary

**Exhibit 3**  
**Site Topographical Map**

EXHIBIT 4  
ENVIRONMENTAL DATABASE SITES WITHIN ASTM SEARCH  
DISTANCE



**Environmental FirstSearch**  
1 Mile Radius from Area  
Single Map:

**CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844**

Source: U.S. Census TIGER Files

Area Polygon

Identified Site, Multiple Sites, Receptor

NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste

Railroads



## Appendix A

### ENVIRONMENTAL DATABASE REPORT





**TRACK ► INFO SERVICES, LLC**

# **Environmental FirstSearch™ Report**

**TARGET PROPERTY:**

**CAMP SMITH MARINE FAMILY HOUSING**

**HONOLULU HI 96844**

Job Number: 904283

**PREPARED FOR:**

Parsons

100 West Walnut Street

Pasadena, CA 91124

02-12-06



*Tel: (866) 664-9981*

*Fax: (818) 249-4227*

# Environmental FirstSearch Search Summary Report

**Target Site:** CAMP SMITH MARINE FAMILY HOUSING  
HONOLULU HI 96844

## FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	01-13-06	1.00	0	0	0	0	0	0	0
CERCLIS	Y	01-13-06	0.50	0	0	0	0	-	0	0
NFRAP	Y	08-01-05	0.12	0	0	-	-	-	1	1
RCRA TSD	Y	09-22-05	0.50	0	0	0	0	-	0	0
RCRA COR	Y	12-10-05	1.00	0	0	0	0	0	0	0
RCRA GEN	Y	12-10-05	0.25	0	0	0	-	-	2	2
RCRA NLR	Y	12-10-05	0.12	0	0	-	-	-	0	0
ERNS	Y	12-31-05	0.12	0	0	-	-	-	0	0
NPDES	Y	10-14-05	0.25	0	0	0	-	-	0	0
FINDS	Y	09-12-05	0.25	0	0	0	-	-	1	1
TRIS	Y	12-01-05	0.25	0	0	0	-	-	0	0
State Sites	Y	NA	1.00	0	0	0	0	0	0	0
Spills-1990	Y	NA	0.12	0	0	-	-	-	0	0
Spills-1980	Y	NA	0.12	0	0	-	-	-	0	0
SWL	Y	NA	0.50	0	0	0	0	-	0	0
Permits	Y	NA	0.25	0	0	0	-	-	0	0
Other	Y	NA	0.25	0	0	0	-	-	0	0
REG UST/AST	Y	08-01-05	0.25	0	0	0	-	-	0	0
Leaking UST	Y	08-01-05	0.50	0	0	0	0	-	0	0
State Wells	Y	NA	0.50	0	0	0	0	-	0	0
Aquifers	Y	NA	0.50	0	0	0	0	-	0	0
ACEC	Y	NA	0.50	0	0	0	0	-	0	0
Wetlands	Y	NA	0.50	0	0	0	0	-	0	0
Floodplains	Y	NA	0.50	0	0	0	0	-	0	0
Nuclear Permits	Y	NA	0.50	0	0	0	0	-	0	0
Historic/Landmark	Y	11-17-05	0.50	0	0	0	0	-	0	0
Federal Land Use	Y	01-27-05	0.50	1	0	0	0	-	0	1
Federal Wells	Y	05-19-03	0.50	0	0	0	0	-	0	0
Releases(Air/Water)	Y	12-31-05	0.12	0	0	-	-	-	0	0
HMIRS	Y	03-15-05	0.12	0	0	-	-	-	0	0
NCDB	Y	08-30-04	0.25	0	0	0	-	-	0	0
PADS	Y	09-29-05	0.25	0	0	0	-	-	0	0
Federal Other	Y	05-13-05	0.25	0	0	0	-	-	0	0
Brownfield	Y	10-18-05	0.25	0	0	0	-	-	0	0
Towers	Y	01-15-04	0.25	0	0	0	-	-	0	0
Soils	Y	03-18-97	0.25	0	0	0	-	-	0	0
Receptors	Y	NA	0.12	0	0	-	-	-	0	0
FIMAP	N	07-14-05	0.50	-	-	-	-	-	-	-
- TOTALS -				1	0	0	0	0	4	5

### Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

### Waiver of Liability

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services's services proceeding are signifying an understanding of TRACK Info Services's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

***Environmental FirstSearch  
Site Information Report***

**Request Date:** 02-12-06  
**Requestor Name:** (b) (6)  
**Standard:** ASTM

**Search Type:** AREA  
**Job Number:** 904283

**Filtered Report**

**TARGET ADDRESS:** CAMP SMITH MARINE FAMILY HOUSING  
HONOLULU HI 96844

***Demographics***

<b>Sites:</b> 5	<b>Non-Geocoded:</b> 4	<b>Population:</b> NA
<b>Radon:</b> NA		

***Site Location***

	<u><b>Degrees (Decimal)</b></u>	<u><b>Degrees (Min/Sec)</b></u>		<u><b>UTMs</b></u>
<b>Longitude:</b>	-157.905859	-157:54:21	<b>Easting:</b>	613419.253
<b>Latitude:</b>	21.393121	21:23:35	<b>Northing:</b>	2365912.24
			<b>Zone:</b>	4

***Comment***

**Comment:**HAWAII MARINE HOUSING

***Additional Requests/Services***

**Adjacent ZIP Codes:** 1 Mile(s)

**Services:**

ZIP Code	City Name	ST	Dist/Dir	Sel
96701	AIEA	HI	0.00 --	Y
96782	PEARL CITY	HI	0.79 NW	Y
96861	CAMP H M SMITH	HI	0.19 SE	Y

	Requested?	Date
Sanborns	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search	No	
Municipal Reports	No	
Online Topos	No	

***Environmental FirstSearch  
Sites Summary Report***

**TARGET SITE:** CAMP SMITH MARINE FAMILY HOUSING      **JOB:** 904283  
HONOLULU HI 96844      HAWAII MARINE HOUSING

**TOTAL:**      5      **GEOCODED:**      1      **NON GEOCODED:**      4      **SELECTED:**      0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
2	FINDS	USNAVY USMC CAMP SMITH HM HI2170090052	HALAWA HEIGHTS RD HQ CAMP SMITH HI 96861	NON GC	
1	LANDUSE	MARINE CORPS DOD CAMP H. M. SMITH 45973	HI	0.00 --	1
3	NFRAP	CAMP H.M. SMITH HI2170090052/NFRAP-N	HALAWA HEIGHTS HEADQUARTERS AIEA HI 96701	NON GC	
4	RCRAGN	USMC CAMP H M SMITH HI2170090052/SGN	HALAWA HEIGHTS RD CAMP SMITH HI 96861	NON GC	
5	RCRAGN	HALSEY TERRACE NAVAL HOUSING AREA HIR000135798/VGN	PARK 1536 AT ANDERSON CIR HONOLULU HI 96701	NON GC	

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** CAMP SMITH MARINE FAMILY HOUSING      **JOB:** 904283  
HONOLULU HI 96844      HAWAII MARINE HOUSING

FEDERAL LAND USE

<b>SEARCH ID:</b> 1	<b>DIST/DIR:</b> 0.00 --	<b>MAP ID:</b> 1
---------------------	--------------------------	------------------

<b>NAME:</b> MARINE CORPS DOD CAMP H. M. SMITH MARINE CORPS BAS	<b>REV:</b> 1/27/05
<b>ADDRESS:</b> HI	<b>ID1:</b> 45973
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b>
	<b>PHONE:</b>

**FEDERAL LAND INFORMATION**

<b>NAME:</b>	CAMP H. M. SMITH MARINE CORPS BASE
<b>FEATURE:</b>	MARINE CORPS DOD
<b>ADMINISTERING AGENCY:</b>	DOD
<b>STATE FIPS:</b>	15
<b>AREA:</b>	0
<b>PERIMETER:</b>	0.045

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** CAMP SMITH MARINE FAMILY HOUSING      **JOB:** 904283  
HONOLULU HI 96844      HAWAII MARINE HOUSING

FINDS SITE

<b>SEARCH ID:</b> 5	<b>DIST/DIR:</b> NON GC	<b>MAP ID:</b>
---------------------	-------------------------	----------------

<b>NAME:</b> USNAVY USMC CAMP SMITH HM <b>ADDRESS:</b> HALAWA HEIGHTS RD HQ CAMP SMITH HI 96861	<b>REV:</b> <b>ID1:</b> HI2170090052 <b>ID2:</b> <b>STATUS:</b> <b>PHONE:</b>
---	---

**CONTACT:**

DETAILS NOT AVAILABLE

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** CAMP SMITH MARINE FAMILY HOUSING      **JOB:** 904283  
HONOLULU HI 96844      HAWAII MARINE HOUSING

CERCLIS NFRAP

**SEARCH ID:** 2      **DIST/DIR:** NON GC      **MAP ID:**

<b>NAME:</b> CAMP H.M. SMITH <b>ADDRESS:</b> HALAWA HEIGHTS HEADQUARTERS - AIEA AIEA HI 96701  <b>CONTACT:</b> (b) (6)	<b>REV:</b> 1/13/06 <b>ID1:</b> HI2170090052 <b>ID2:</b> 0904260 <b>STATUS:</b> NFRAP-N <b>PHONE:</b> 4159723160
--	--

**DESCRIPTION:**

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
ARCHIVE SITE	EPA In-House		01-23-1996
DISCOVERY	Federal Facilities		01-07-1992
PRELIMINARY ASSESSMENT High	Federal Facilities		01-06-1993
SITE INSPECTION High	Federal Facilities		01-06-1993
SITE INSPECTION NFRAP (No Futher Remedial Action Planned)	Federal Facilities		09-29-1995

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** CAMP SMITH MARINE FAMILY HOUSING      **JOB:** 904283  
HONOLULU HI 96844      HAWAII MARINE HOUSING

**RCRA GENERATOR SITE**

**SEARCH ID:** 4      **DIST/DIR:** NON GC      **MAP ID:**

<b>NAME:</b>	USMC CAMP H M SMITH	<b>REV:</b>	12/10/05
<b>ADDRESS:</b>	HALAWA HEIGHTS RD	<b>ID1:</b>	HI2170090052
	CAMP SMITH HI 96861	<b>ID2:</b>	
		<b>STATUS:</b>	SGN
<b>CONTACT:</b>	ENVIRONMENTAL MANAGER	<b>PHONE:</b>	8084776275

**SITE INFORMATION**

**UNIVERSE TYPE:**

SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

**SIC INFORMATION:**

9711 - PUBLIC ADMIN. - NATIONAL SECURITY  
9199 - PUBLIC ADMIN. - GENRAL GOVERNMENT, NEC

**ENFORCEMENT INFORMATION:**

**VIOLATION INFORMATION:**

<b>VIOLATION NUMBER:</b>	0001	<b>RESPONSIBLE:</b>	S - STATE
<b>DETERMINED:</b>	19-MAY-98	<b>DETERMINED BY:</b>	S - STATE
<b>CITATION:</b>	262.40-43.D	<b>RESOLVED:</b>	07-AUG-98
<b>TYPE:</b>	GER - GENERATOR ALL REQUIREMENTS		

<b>VIOLATION NUMBER:</b>	0002	<b>RESPONSIBLE:</b>	S - STATE
<b>DETERMINED:</b>	19-MAY-98	<b>DETERMINED BY:</b>	S - STATE
<b>CITATION:</b>	262.44.D	<b>RESOLVED:</b>	07-AUG-98
<b>TYPE:</b>	GER - GENERATOR ALL REQUIREMENTS		



***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** CAMP SMITH MARINE FAMILY HOUSING      **JOB:** 904283  
HONOLULU HI 96844      HAWAII MARINE HOUSING

RCRA GENERATOR SITE
---------------------

<b>SEARCH ID:</b> 3	<b>DIST/DIR:</b> NON GC	<b>MAP ID:</b>
---------------------	-------------------------	----------------

<b>NAME:</b> HALSEY TERRACE NAVAL HOUSING AREA <b>ADDRESS:</b> PARK 1536 AT ANDERSON CIR HONOLULU HI 96701 HI003 <b>CONTACT:</b> (b) (6)	<b>REV:</b> 12/10/05 <b>ID1:</b> HIR000135798 <b>ID2:</b> <b>STATUS:</b> VGN <b>PHONE:</b> 808-927-7703
--	---

DETAILS NOT AVAILABLE

## **Environmental FirstSearch Database Descriptions**

**NPL:** *EPA* NATIONAL PRIORITY LIST - Database of confirmed, proposed or deleted Superfund sites.

**CERCLIS:** *EPA* COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM - Database of current and potential Superfund sites currently or previously under investigation.

**NFRAP:** *EPA* COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

**RCRA TSD:** *EPA* RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of facilities licensed to store, treat and dispose of hazardous waste materials.

**RCRA COR:** *EPA* RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of RCRA facilities with reported violations and subject to corrective actions.

**RCRA GEN:** *EPA* RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of facilities that generate or transport hazardous waste or meet other RCRA requirements. LGN - Large Quantity Generators SGN - Small Quantity Generators VGN – Conditionally Exempt Generator. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

**RCRA NLR:** *EPA* RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of facilities not currently classified by the EPA but are still included in the RCRIS database. Reasons for non classification: Failure to report in a timely matter. No longer in business. No longer in business at the listed address. No longer generating hazardous waste materials in quantities which require reporting.

**ERNS:** *EPA/NRC* EMERGENCY RESPONSE NOTIFICATION SYSTEM - Database of emergency response actions. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

**NPDES:** *EPA* THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM - Database of permitted facilities receiving and discharging effluents to and from a natural source where treatment of the effluent is monitored.

**FINDS:** *EPA* FACILITY INDEX SYSTEM(FINDS)/FACILITY REGISTRY SYSTEM(FRS) - The index of identification numbers associated with a property or facility which the EPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the EPA office that may have files on the site or facility. A Facility Registry System site has an FRS in the status field.

**TRIS:** *EPA* TOXIC RELEASE INVENTORY SYSTEM - Database of all facilities that have had or may be prone to toxic material releases.

**REG UST/AST:** *HI DOH* UNDERGROUND STORAGE TANKS- The Hawaii Department of Health's inventory of underground storage tanks.

**LEAKING UST:** *HI DOH* LEAKING UNDERGROUND STORAGE TANKS-The Hawaii Department of Health's inventory of sites with leaking underground storage tanks.

**WETLANDS:** *US FWS* NATIONAL WETLANDS INVENTORY (NWI) - database of information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. This data is available for select areas of the United States.

**FLOODPLAINS:** *FEMA* FLOODPLAINS – database of 100 year and 500 year flood zone boundaries for select counties in the United States

**RECEPTORS:** *US DOC* SENSITIVE RECEPTORS - 2002 Census Bureau's TIGER (Topologically Integrated Geographic Encoding and Referencing System) database of schools and hospitals. List of schools and hospitals that may house individuals deemed sensitive to environmental discharges due to their fragile immune systems.

**NUCLEAR PERMITS:** *EPA/NRC* PERMITTED NUCLEAR FACILITIES THE RADINFO DATABASE - Database of basic information about facilities that are permitted and regulated for their use and handling of radioactive materials.

**HISTORIC/LANDMARK:** *NPS* NATIONAL REGISTRY OF HISTORIC PLACES DATABASE - The nation's official list of cultural resources worthy of preservation. Properties listed include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

**FEDERAL LAND USE:** *USGS/EPA* FEDERAL LANDS OF THE UNITED STATES - Database of lands owned or administered by the Federal Government, including the Bureau of Land Management, the Bureau of Reclamation, the U.S. Department of Agriculture Forest Service, the Department of Defense, the U.S. Fish and Wildlife Service, the National Park Service, the Tennessee Valley Authority, and other agencies. Only areas of 640 acres or more are included. Descriptive information includes the name and type of the Federal land and the

administering agency.INDIAN LANDS OF THE UNITED STATES - Areas administered by the Bureau of Indian Affairs shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.ENDANGERED SPECIES PROTECTION PROGRAM DATABASE – List of the Endangered Species by county and the species status.

**FEDERAL WELLS:** *USGS* UNITED STATES GROUND-WATER SITES INVENTORY - Database of more than 850,000 records of wells, springs, test holes, tunnels, drains, and excavations in the United States.

**RELEASES(AIR/WATER):** *EPA/NRC* AIR AND SURFACE WATER RELEASES - A subset of the ERNSNational Response System database which have impacted only the air or surface water.

**HMIRS:** *US DOT* HAZARDOUS MATERIALS INCIDENT RESPONSE SYSTEM - Database of information regarding materials, packaging, and a description of events for tracked incidents.

**NCDB:** *EPA* NATIONAL COMPLIANCE DATA BASE SYSTEM - Database of regional compliance and enforcement activity and manages the Pesticides and Toxic Substances Compliance and Enforcement program at a national level. The system tracks all compliance monitoring and enforcement activities from the time an inspector conducts and inspection until the time the inspector closes or the case settles the enforcement action. NCDB is the national repository of the 10 regional and Headquarters FIFRA/TSCA Tracking System (FTTS). Data collected in the regional FTTS is transferred to NCDB to support the need for monitoring national performance of regional programs.

**OTHER:** *EPA* SECTION SEVEN TRACKING SYSTEM (SSTS) – database of registration and production data for facilities which manufacture pesticides.AEROMETRIC INFORMATION RETRIEVAL SYSTEM (AIRS) – database of detailed information pertaining to sites which submit air emissions reports. Developed under the Clean Air Act, this database also maintains data on compliance status and enforcement actions.

**TOWERS:** *FAA/ FCC* Tower - database encompasses three sources of information from the Federal Aviation Administration and the Federal Communications Commission. FAA data includes the Digital Obstacle File which contains obstruction data for man made objects that affect domestic aeronautical charting products. FCC data includes the Wireless Telecommunication Bureau's Universal Licensing System which contains the Antenna Structure Database and the Cellular Tower Database. FCC data also includes the Mass Media Bureau's Consolidated Database System which includes engineering data for AM, FM, and Television broadcasting stations.

**SOILS:** *USGS/NRCS* NATIONAL SOILS DATABASE - Database comprised of the State Soil Geographic (STATSGO) data for the conterminous United States, Soil Survey Geographic (SSURGO) and Digital Data Series Bedrock data. These databases contain information regarding soil characteristics such as water capacity, percent clay, organic material, permeability, thickness of layers, hydrological characteristics, quality of drainage, surface, slope, liquid limit, and the annual frequency of flooding.

**PADS:** *EPA* DATABASE OF PCB HANDLERS - Database of PolyChlorinatedBiPhenol generators, transporters, storers and/or disposers that are required to register with the EPA. This database indicates the type of handler and registration number. Also included is the PCB Transformer Registration Database.

**RADON:** *NTIS* NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

## Environmental FirstSearch Database Sources

**NPL:** *EPA* Environmental Protection Agency

*Updated quarterly*

**CERCLIS:** *EPA* Environmental Protection Agency

*Updated quarterly*

**NFRAP:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RCRA TSD:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RCRA COR:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RCRA GEN:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RCRA NLR:** *EPA* Environmental Protection Agency

*Updated quarterly*

**ERNS:** *EPA/NRC* Environmental Protection Agency

*Updated semi-annually*

**NPDES:** *EPA* Environmental Protection Agency

*Updated quarterly*

**FINDS:** *EPA* Environmental Protection Agency

*Updated annually*

**TRIS:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**REG UST/AST:** *HI DOH* The Hawaii Department of Health, Solid and Hazardous Waste Branch

*Updated biannually*

**LEAKING UST:** *HI DOH* The Hawaii Department of Health, Solid and Hazardous Waste Branch

*Updated biannually*

**WETLANDS:** *US FWS* U.S. Fish and Wildlife Service

*Updated when available*

**FLOODPLAINS:** *FEMA* Federal Emergency Management Agency

*Updated when available*

**RECEPTORS:** *US DOC* US Department of Commerce, Census Bureau

*Updated periodically*

**NUCLEAR PERMITS:** *EPA/NRC* Nuclear Regulatory Commission

*Updated periodically*

**HISTORIC/LANDMARK:** *NPS* National Park Service

*Updated annually*

**FEDERAL LAND USE:** *USGS/EPA* U.S. Geological Survey

*Updated annually*

**FEDERAL WELLS:** *USGS* United States Geographical Survey.

*Updated annually*

**RELEASES(AIR/WATER):** *EPA/NRC* Environmental Protection Agency

*Updated semi-annually*

**HMIRS:** *US DOT* US Department of Transportation

*Updated quarterly*

**NCDB:** *EPA* Environmental Protection Agency

*Updated quarterly*

**OTHER:** *EPA* Environmental Protection Agency

*Updated quarterly*

**TOWERS:** *FAA/FCC* Federal Aviation Administration

*Updated*

**SOILS:** *USGS/NRCS* United States Geographical Survey

*Updated annually*

**PADS:** *EPA* Environmental Protection Agency

*Updated quarterly*

**RADON:** *NTIS* Environmental Protection Agency, National Technical Information Services

*Updated periodically*

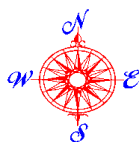


***Environmental FirstSearch***  
***Street Name Report for Streets within .25 Mile(s) of Target Property***

**TARGET SITE:** CAMP SMITH MARINE FAMILY HOUSING      **JOB:** 904283  
HONOLULU HI 96844      HAWAII MARINE HOUSING

Street Name	Dist/Dir	Street Name	Dist/Dir
Aiealani Pl	0.18 SW		
Anderson Rd	0.02 NW		
Baugh Rd	0.05 NW		
Elrod Rd	0.18 SE		
Fernridge Pl	0.23 SW		
Halawa Heights Rd	0.05 NW		
Hele Mauna Pl	0.10 NW		
NOCOVERAGE	0.00 --		
Palaialii Pl	0.06 NW		
Palaialii Way	0.08 NW		
Thompson Rd	0.13 SE		



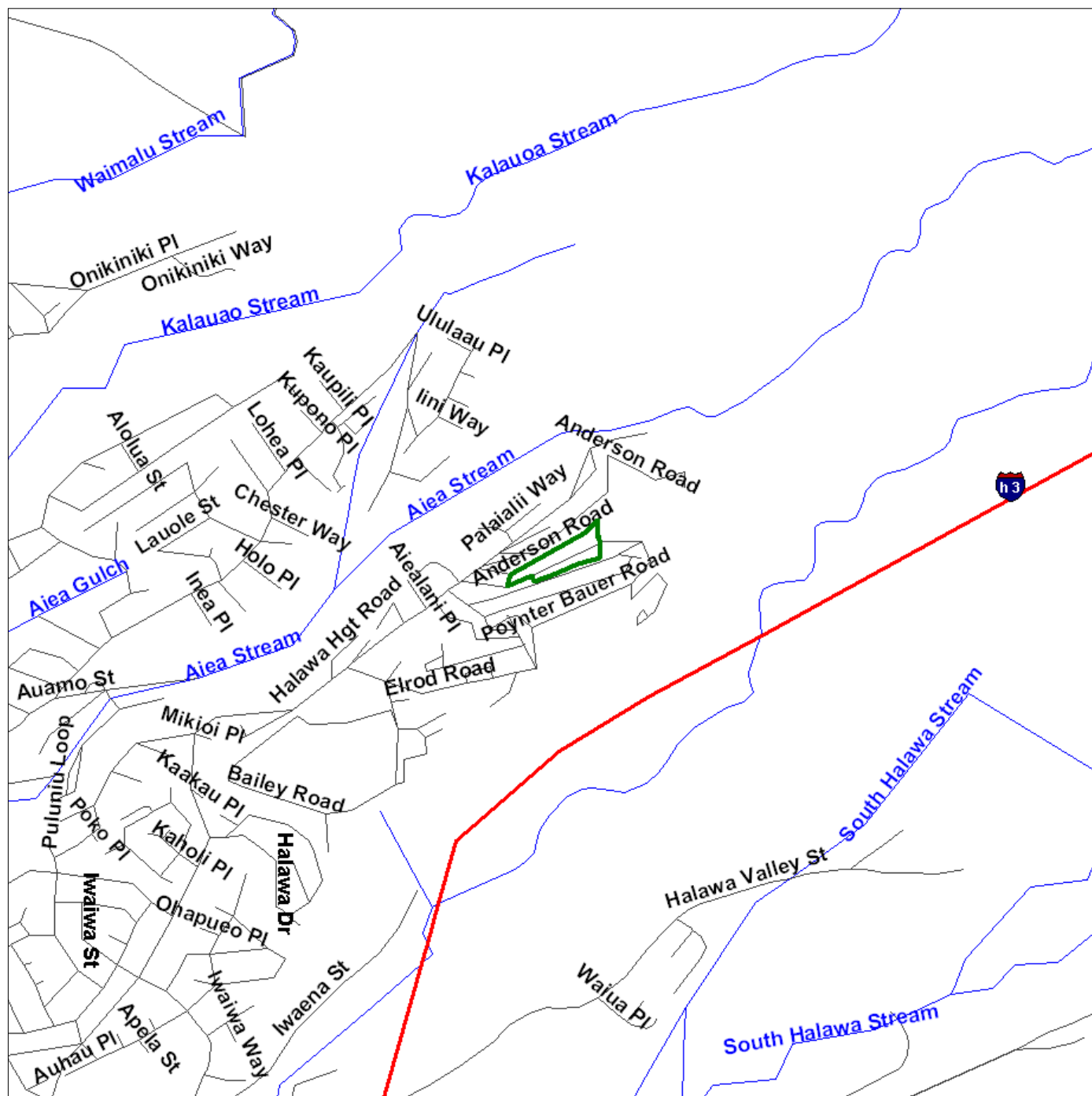


# Environmental FirstSearch

1 Mile Radius from Area  
ASTM: NPL, RCACOR, STATE



## CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844

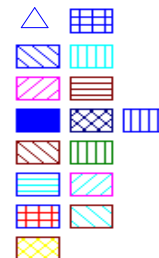


Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....  
National Historic Sites and Landmark Sites .....  
Soil Sites .....  
Railroads .....



Public Water Supply, DEP Zone II Boundaries .....  
Potentially Productive Aquifers: High Yield (GAA), Medium Yield (GA) .....  
Non-Potential Drinking Source: High Yield (GB), Medium Yield (GC) ...  
Water Bodies, Sole Source Aquifer .....  
Area of Critical Environmental Concern (ACEC), Protected Open Spaces .....  
Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....  
Floodplains: 100 Year, 500 Year .....  
Wetlands .....



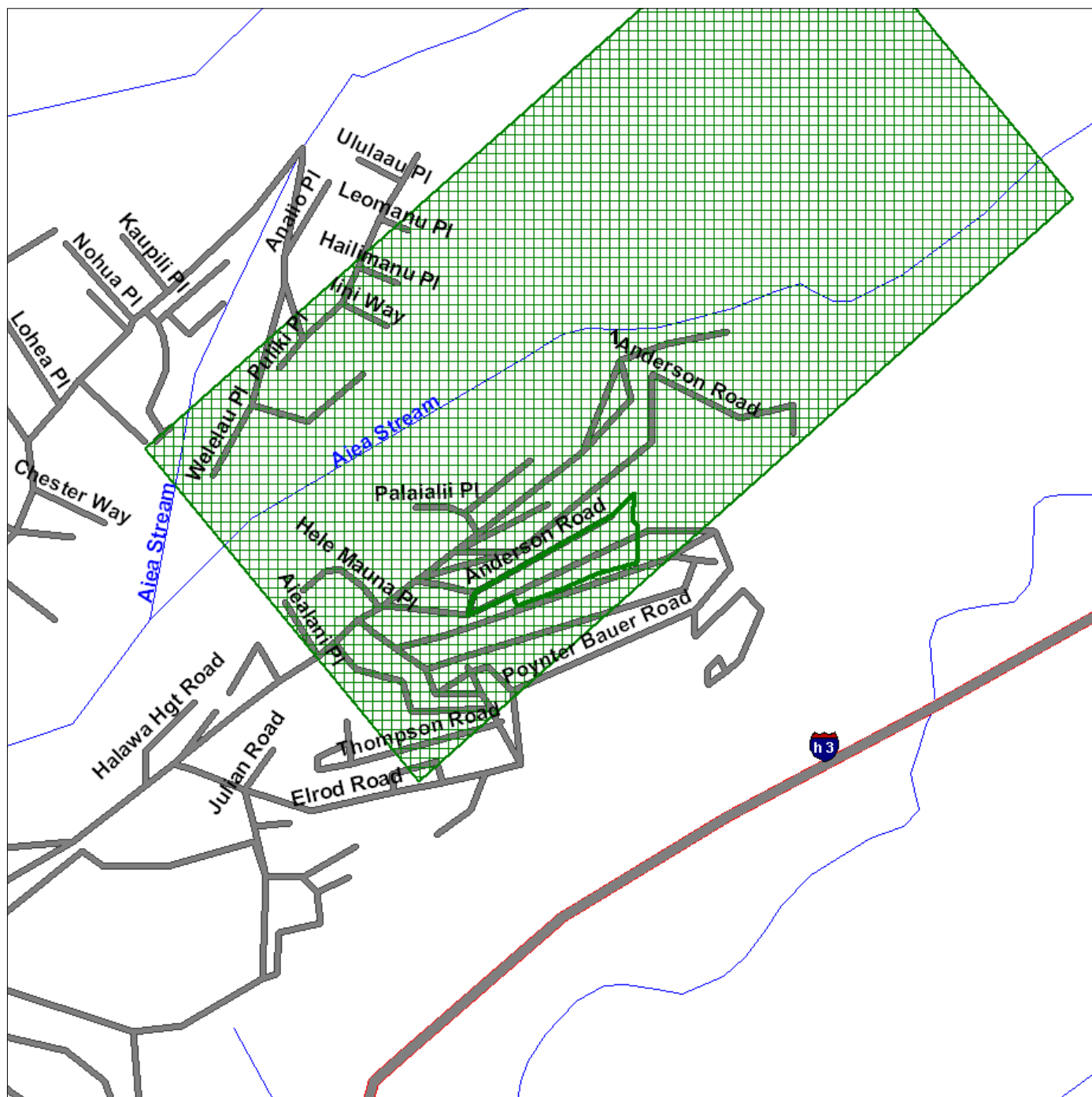


# Environmental FirstSearch

.5 Mile Radius from Area  
ASTM: Multiple Databases



## CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844

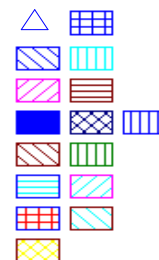


Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....  
National Historic Sites and Landmark Sites .....  
Soil Sites .....  
Railroads .....



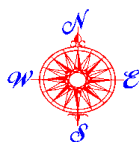
Public Water Supply, DEP Zone II Boundaries .....  
Potentially Productive Aquifers: High Yield (GAA), Medium Yield (GA) .....  
Non-Potential Drinking Source: High Yield (GB), Medium Yield (GC) ...  
Water Bodies, Sole Source Aquifer .....  
Area of Critical Environmental Concern (ACEC), Protected Open Spaces .....  
Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....  
Floodplains: 100 Year, 500 Year .....  
Wetlands .....









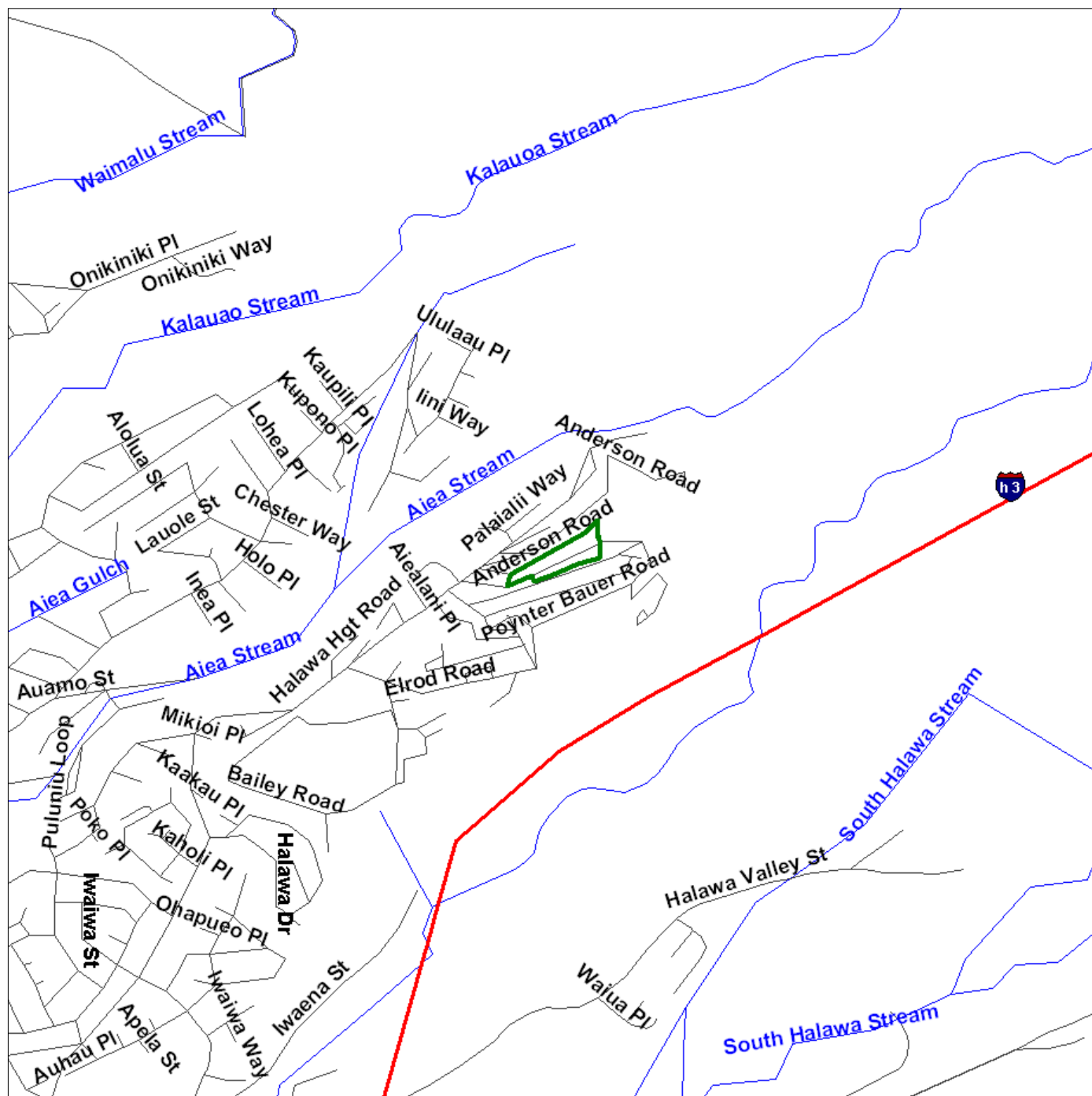


# Environmental FirstSearch

1 Mile Radius from Area  
ASTM Map: NPL, RCRCOR, STATE Sites



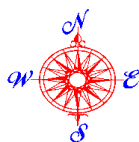
## CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844



Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....  
Railroads .....



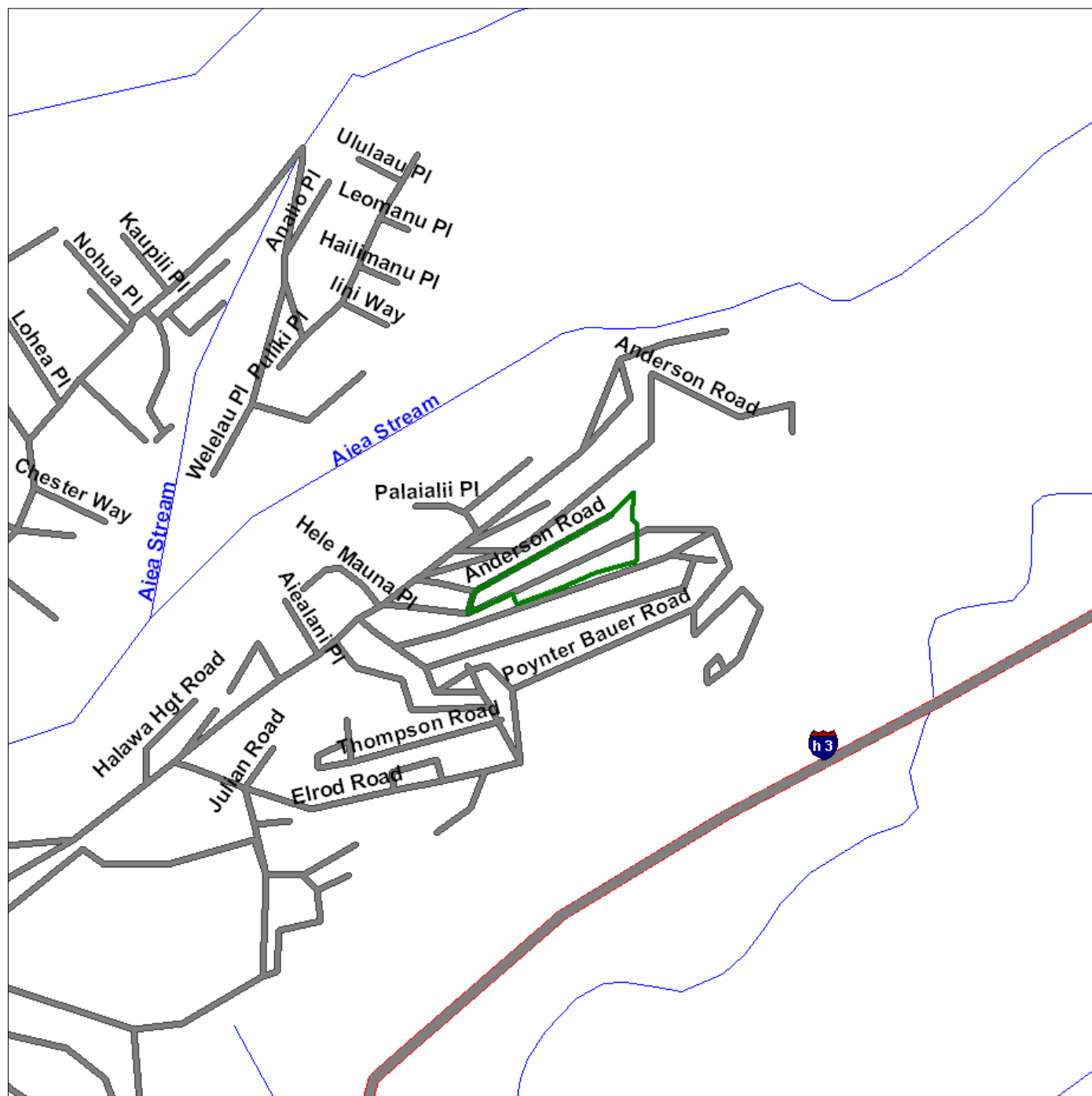


# Environmental FirstSearch

.5 Mile Radius from Area  
ASTM Map: CERCLIS, RCRATSD, LUST, SWL



## CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844

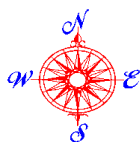


Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....  
Railroads .....





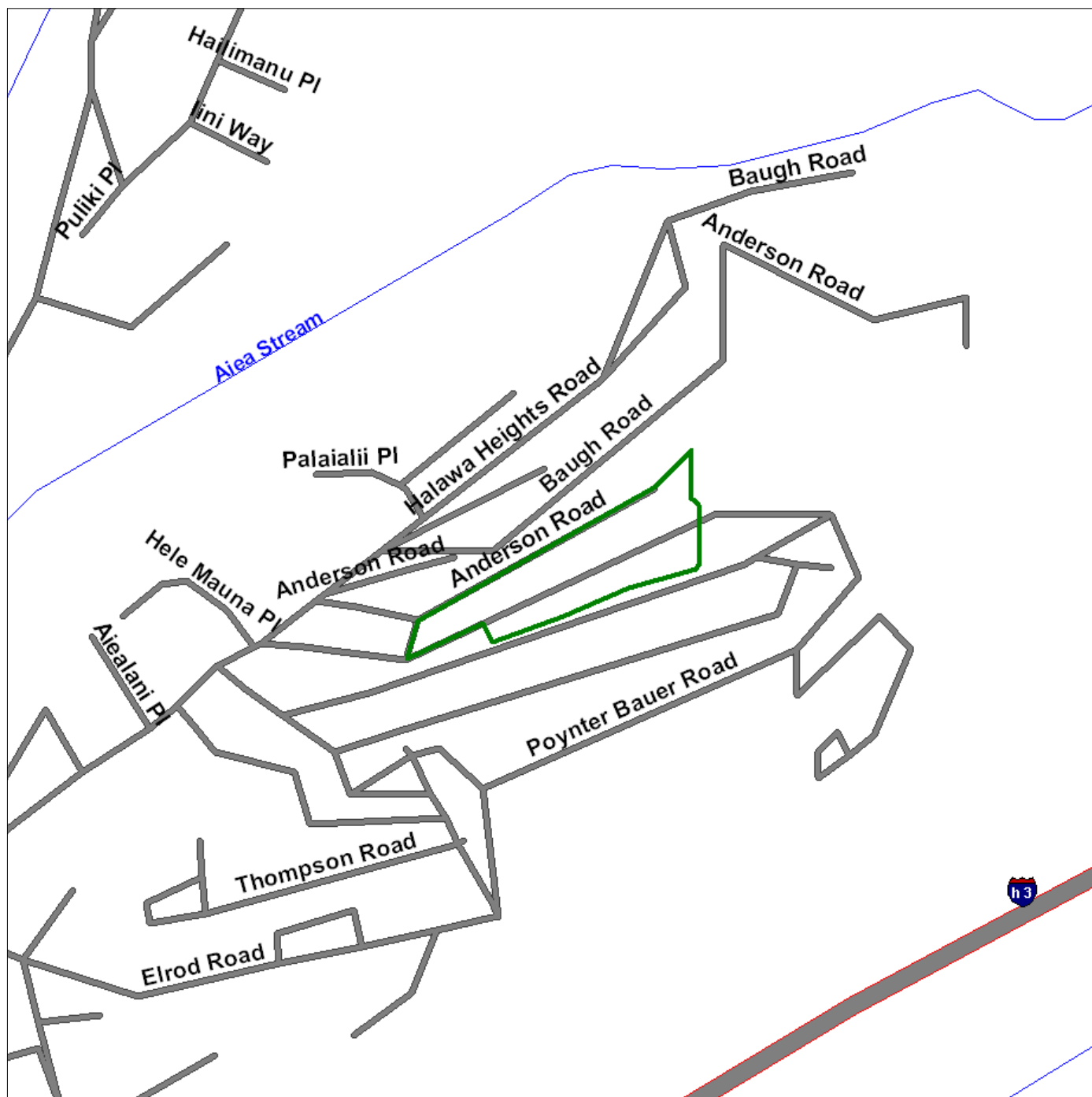


## Environmental FirstSearch

.25 Mile Radius from Area  
ASTM Map: RCRAGEN, ERNS, UST



### CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844



Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....  
Railroads .....



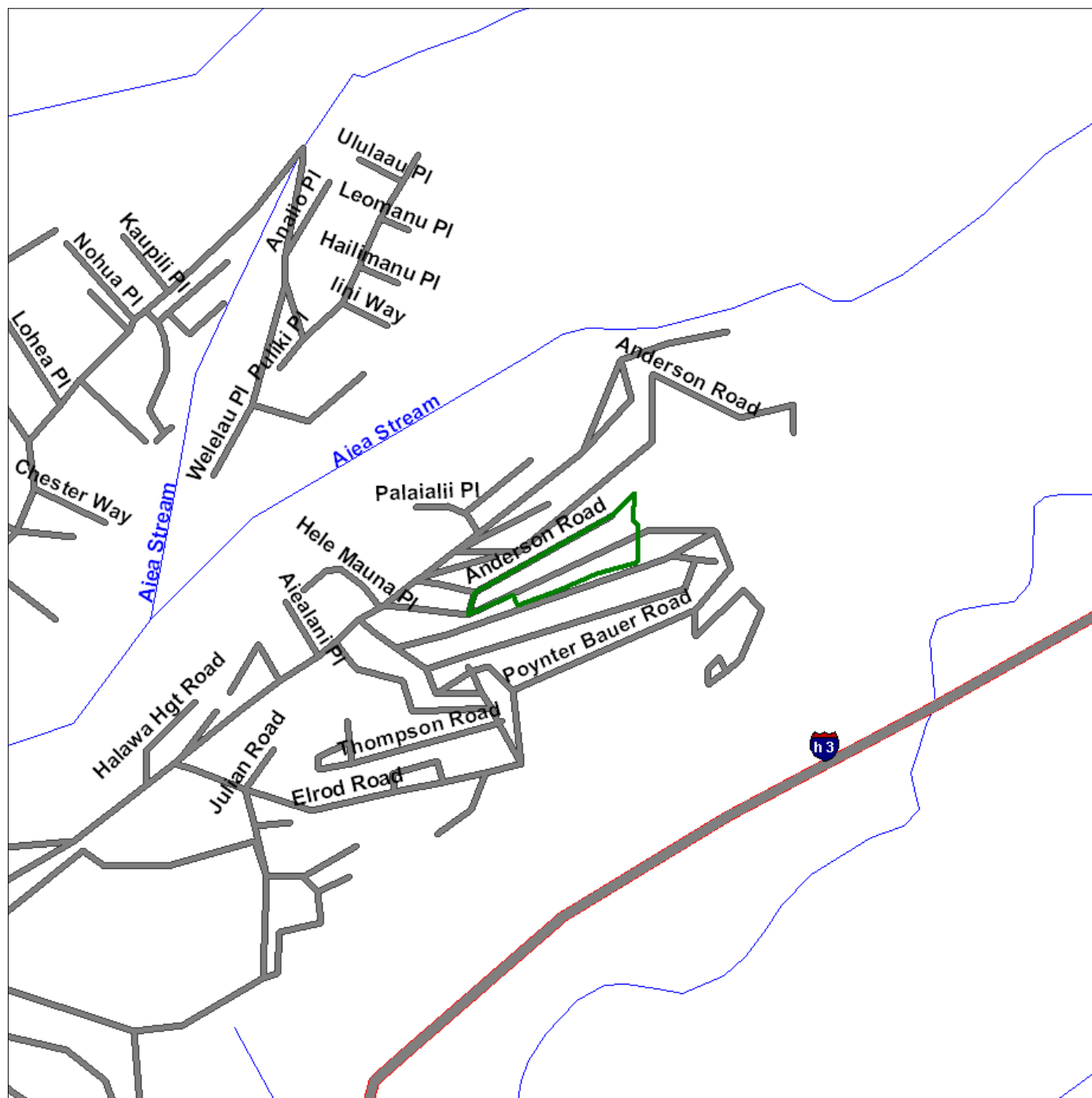


## Environmental FirstSearch

.5 Mile Radius from Area  
ASTM AAI Map: Brownfield



### CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844



Source: U.S. Census TIGER Files

Area Polygon .....  
Brownfield.....  
Railroads .....



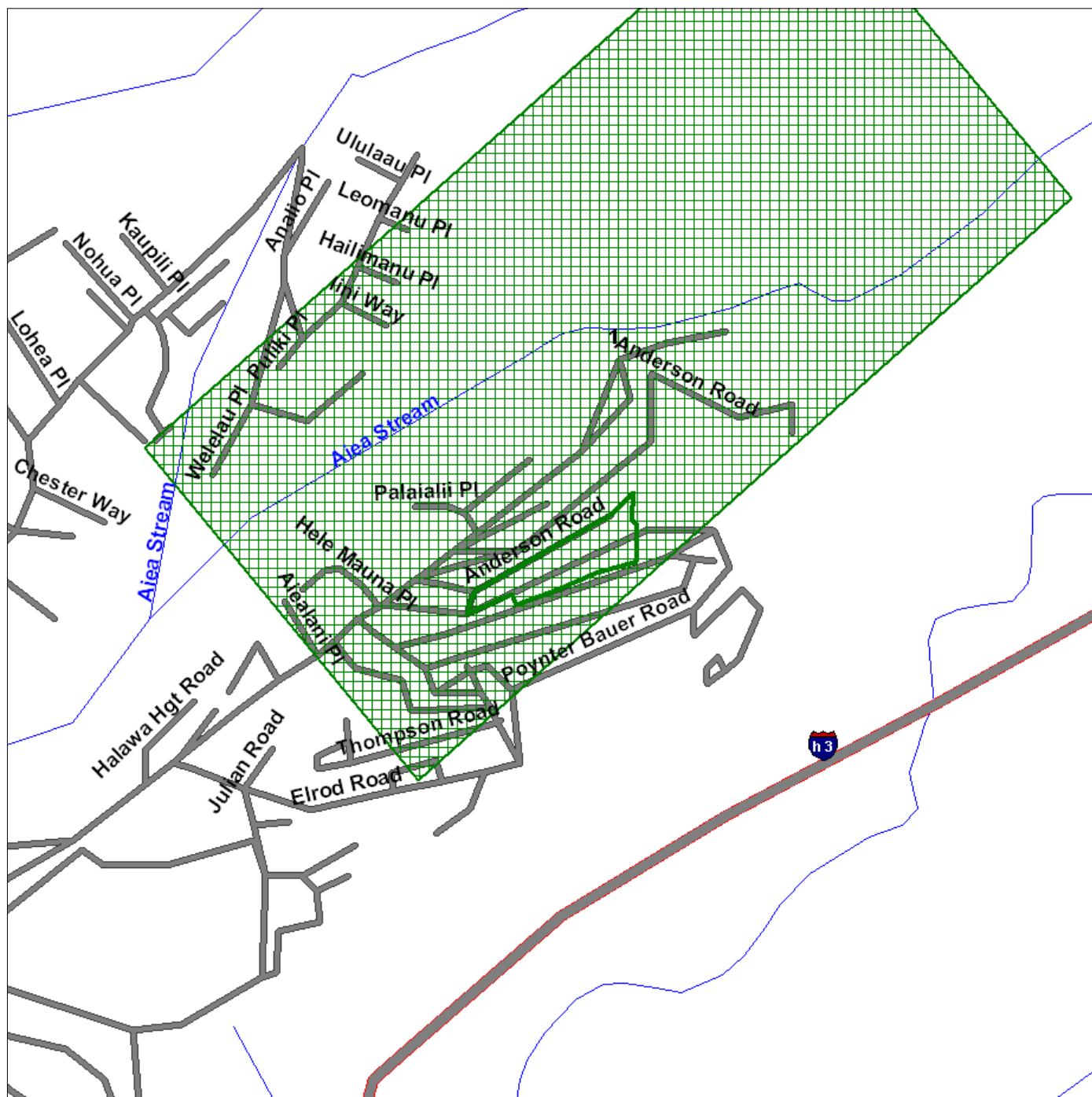


## Environmental FirstSearch

.5 Mile Radius from Area  
ASTM AAI Map: Federal Land Use Sites

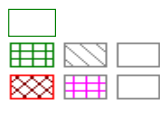


### CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844



Source: U.S. Census TIGER Files

Area Polygon .....  
Fed. Land Use: Wilderness Areas, Wildlife Preserves .....  
Fed. Land Use: Amer. Indian Sacred Sites, End. Species' Habitats...  
Railroads .....



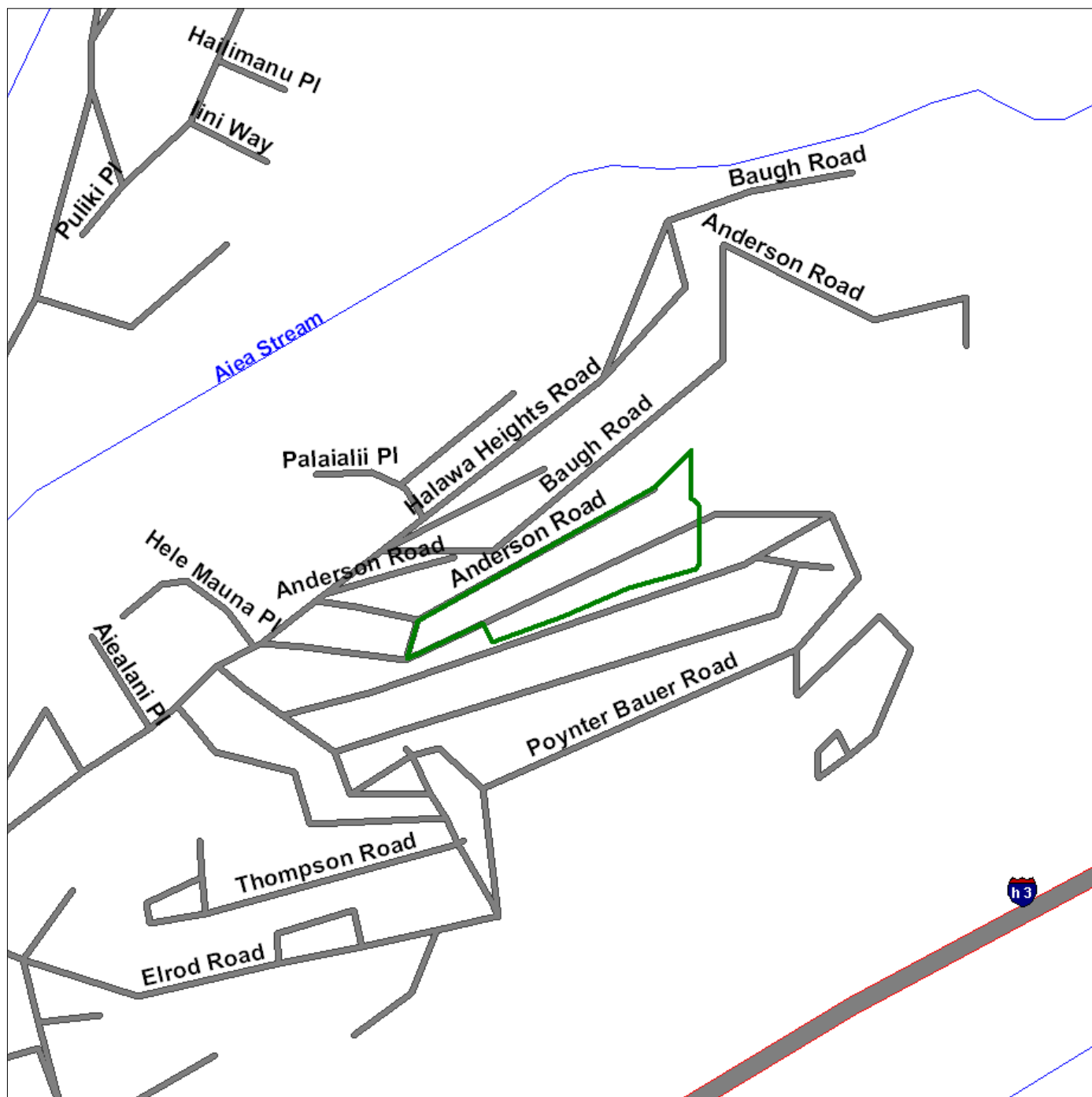


## Environmental FirstSearch

.25 Mile Radius from Area  
Non-ASTM Map: No Sites Found



### CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844



Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....  
National Historic Sites and Landmark Sites .....  
Railroads .....



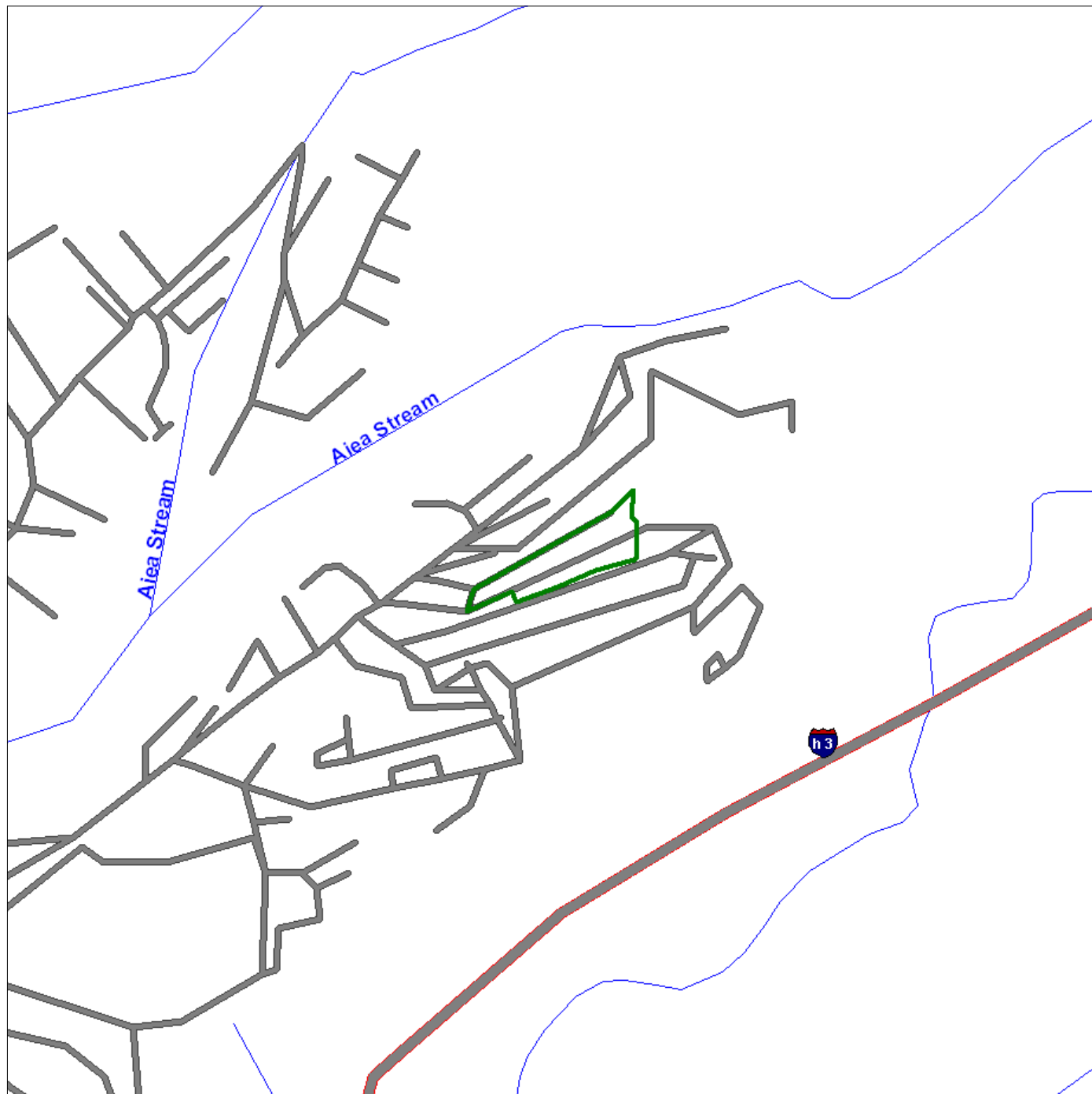


## Environmental FirstSearch

.5 Mile Radius from Area  
NEPA Map: WETLANDS



### CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844



Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
Wetlands .....  
Railroads .....



Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

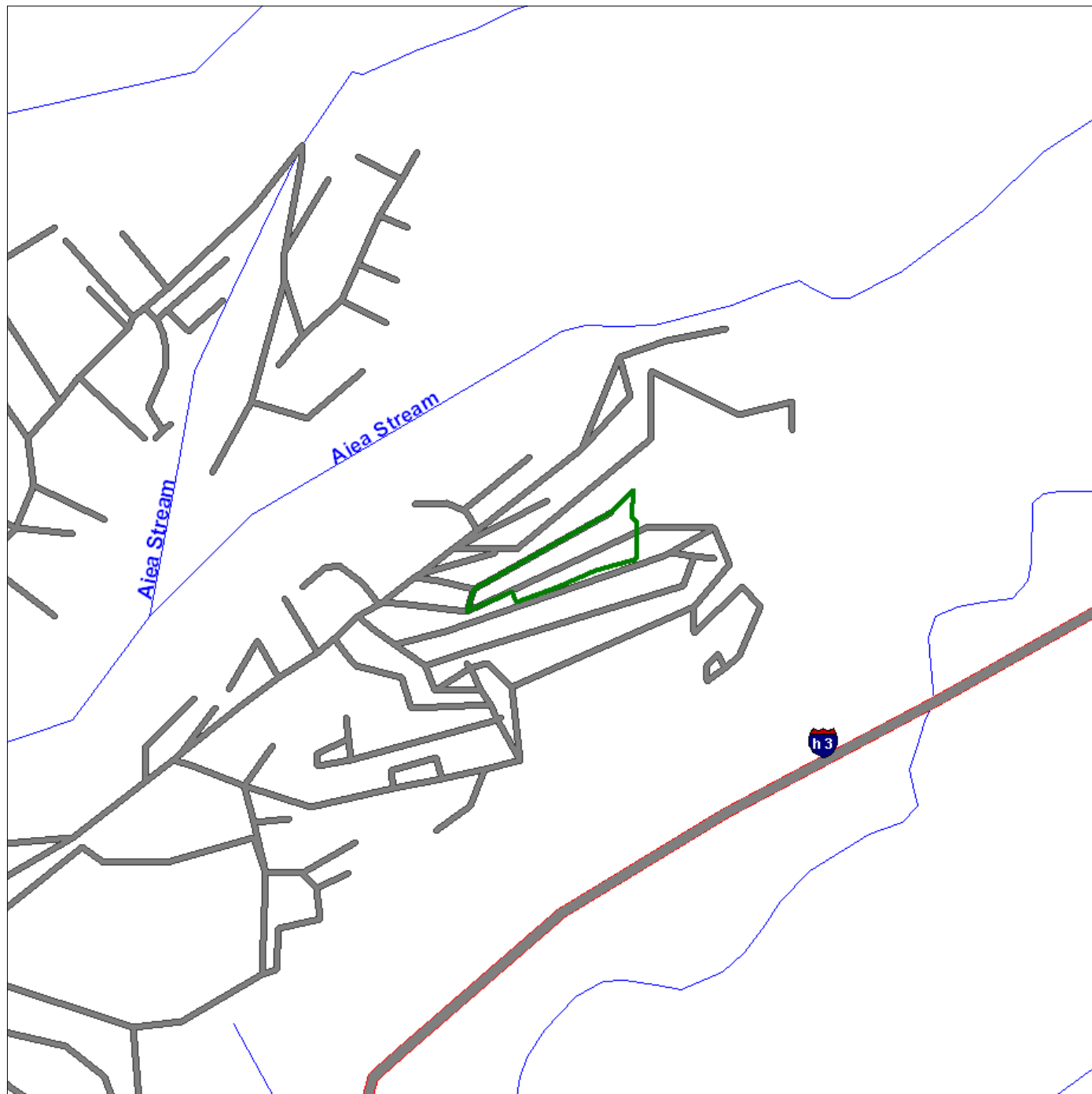


## Environmental FirstSearch

.5 Mile Radius from Area  
NEPA Map: FLOODPLAINS



### CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844



Source: U.S. Census TIGER Files

Area Polygon .....	
Identified Site, Multiple Sites, Receptor .....	
Floodplains: 100 Year, 500 Year .....	
Railroads .....	

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

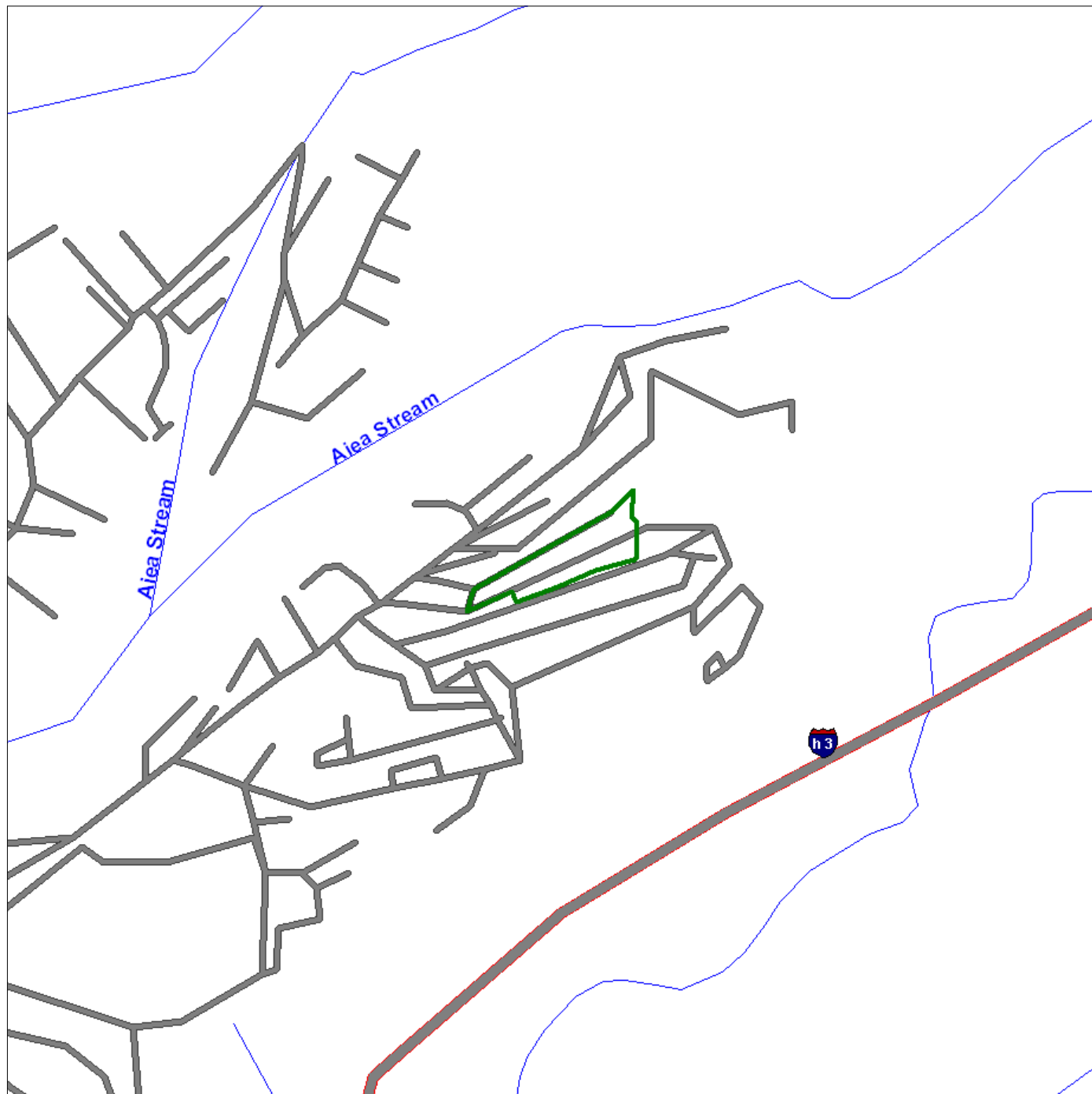


## Environmental FirstSearch

.5 Mile Radius from Area  
NEPA Map: ACEC SITES



### CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844



Source: U.S. Census TIGER Files

Area Polygon .....	
Receptor .....	
Area of Critical Environmental Concern (ACEC), Protected Open Spaces .....	
Railroads .....	

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

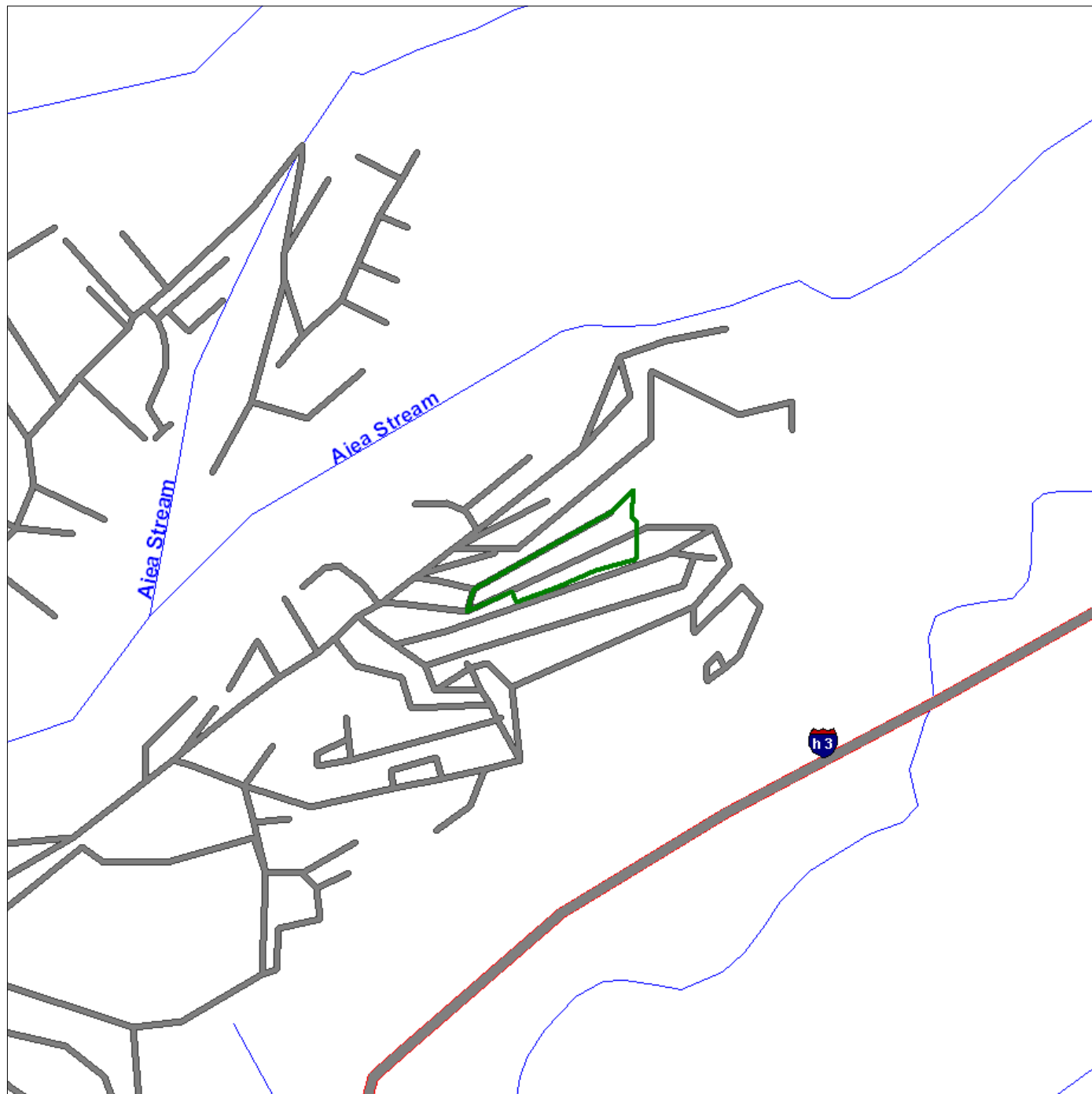


## Environmental FirstSearch

.5 Mile Radius from Area  
NEPA Map: HISTORIC SITES



### CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844

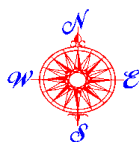


Source: U.S. Census TIGER Files

Area Polygon .....	
Receptor .....	
National Historic Sites and Landmark Sites .....	
Railroads .....	

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius



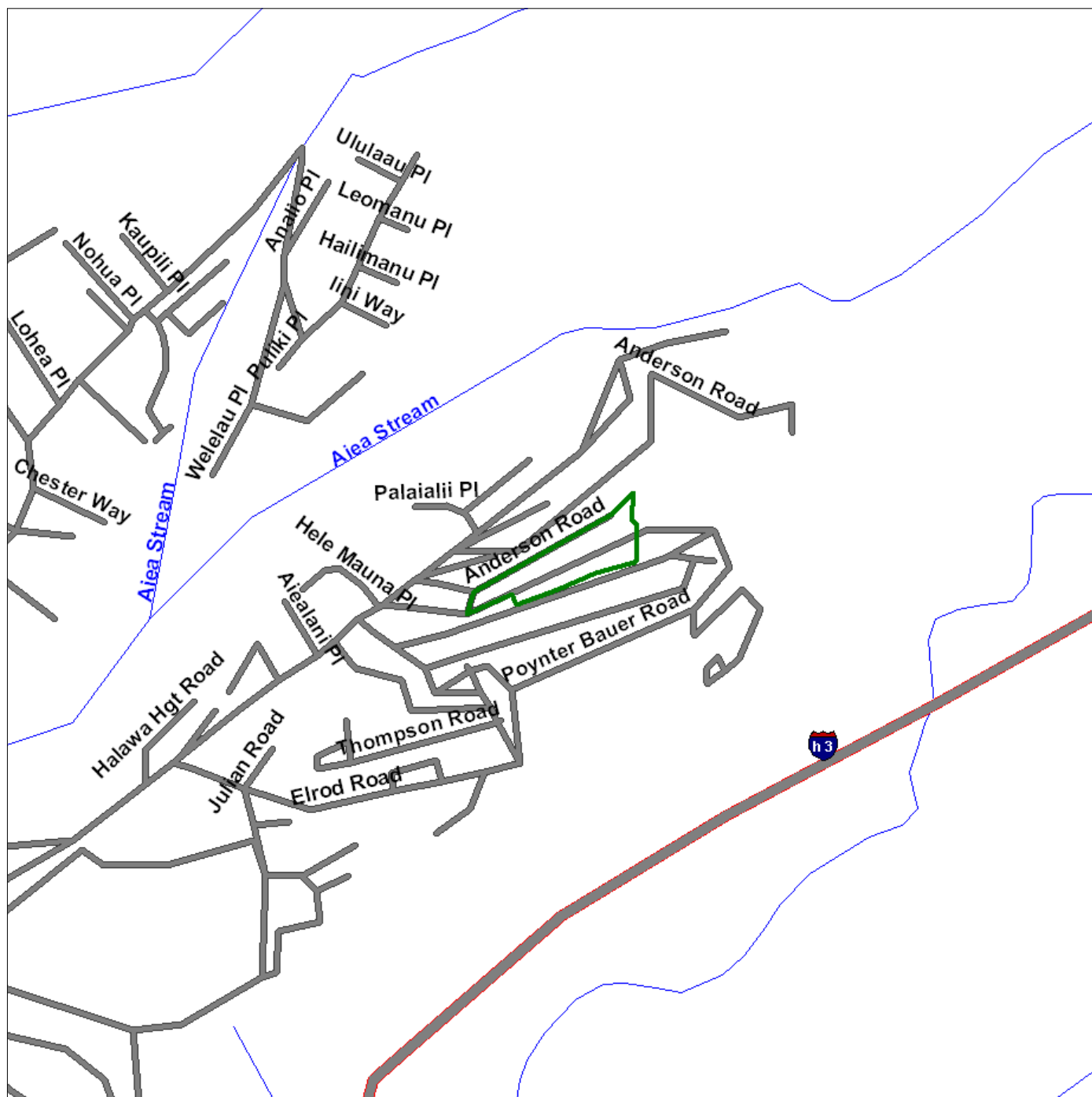


## Environmental FirstSearch

.5 Mile Radius from Area  
NEPA Map: LANDUSE



### CAMP SMITH MARINE FAMILY HOUSING , HONOLULU HI 96844



Source: U.S. Census TIGER Files

Area Polygon .....		
Receptor .....		
Fed. Land Use: Wilderness Areas .....		
Fed. Land Use: Wildlife Preserves .....		
Fed. Land Use: Amer. Indian Sacred Sites.....		
Fed. Land Use: Endangered Species' Habitats.....		
Railroads .....		

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius



**TRACK ► INFO SERVICES, LLC**

# **Environmental FirstSearch™ Report**

**TARGET PROPERTY:**

**ANDERSON ROAD**

**HONOLULU HI 96844**

Job Number: 904283

**PREPARED FOR:**

Parsons

100 West Walnut Street

Pasadena, CA 91124

08-12-06



*Tel: (866) 664-9981*

*Fax: (818) 249-4227*

# ***Environmental FirstSearch Search Summary Report***

**Target Site:**   ANDERSON ROAD  
HONOLULU HI 96844

## **FirstSearch Summary**

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NFRAP	Y	06-08-06	0.50	0	0	0	0	-	1	1
Brownfield	Y	10-18-05	0.50	0	0	0	0	-	0	0
- TOTALS -				0	0	0	0	0	1	1

## **Notice of Disclaimer**

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

## **Waiver of Liability**

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services's services proceeding are signifying an understanding of TRACK Info Services's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

***Environmental FirstSearch  
Site Information Report***

**Request Date:** 08-12-06  
**Requestor Name:** (b) (6)  
**Standard:** AAI

**Search Type:** AREA  
**Job Number:** 904283

**Filtered Report**

**TARGET ADDRESS:** ANDERSON ROAD  
HONOLULU HI 96844

***Demographics***

<b>Sites:</b> 1	<b>Non-Geocoded:</b> 1	<b>Population:</b> NA
<b>Radon:</b> NA		

***Site Location***

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>		<u>UTMs</u>
<b>Longitude:</b>	-157.905859	-157:54:21	<b>Easting:</b>	613419.253
<b>Latitude:</b>	21.393121	21:23:35	<b>Northing:</b>	2365912.24
			<b>Zone:</b>	4

***Comment***

**Comment:**RERUN ASTM 05

***Additional Requests/Services***

**Adjacent ZIP Codes:** 1 Mile(s)

**Services:**

ZIP Code	City Name	ST	Dist/Dir	Sel
96701	AIEA	HI	0.00 --	Y
96782	PEARL CITY	HI	0.79 NW	Y
96861	CAMP H M SMITH	HI	0.19 SE	Y

	Requested?	Date
Sanborns	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search	No	
Municipal Reports	No	
Online Topos	No	

***Environmental FirstSearch  
Sites Summary Report***

**TARGET SITE:**     ANDERSON ROAD  
                         HONOLULU HI 96844

**JOB:**     904283  
         RERUN ASTM 05

**TOTAL:**     1                    **GEOCODED:**   0                    **NON GEOCODED:**   1                    **SELECTED:**   0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
1	NFRAP	CAMP H.M. SMITH	HALAWA HEIGHTS HEADQUARTERS	NON GC	
		HI2170090052/NFRAP-N	AIEA HI 96701		

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:**     ANDERSON ROAD  
                             HONOLULU HI 96844

**JOB:**     904283  
             RERUN ASTM 05

CERCLIS NFRAP

<b>SEARCH ID:</b> 1	<b>DIST/DIR:</b> NON GC	<b>MAP ID:</b>
---------------------	-------------------------	----------------

<b>NAME:</b> CAMP H.M. SMITH <b>ADDRESS:</b> HALAWA HEIGHTS HEADQUARTERS - AIEA AIEA HI 96701	<b>REV:</b> 3/8/06 <b>ID1:</b> HI2170090052 <b>ID2:</b> 0904260 <b>STATUS:</b> NFRAP-N <b>PHONE:</b> 4159723160
<b>CONTACT:</b> (b) (6)	

**DESCRIPTION:**

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
ARCHIVE SITE	EPA In-House		01-23-1996
DISCOVERY	Federal Facilities		01-07-1992
PRELIMINARY ASSESSMENT High	Federal Facilities		01-06-1993
SITE INSPECTION NFRAP (No Futher Remedial Action Planned)	Federal Facilities		09-29-1995
SITE INSPECTION High	Federal Facilities		01-06-1993

## Environmental FirstSearch Database Descriptions

**NFRAP:** *EPA* COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

**RADON:** *NTIS* NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.



## Environmental FirstSearch Database Sources

**NFRAP:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RADON:** *NTIS* Environmental Protection Agency, National Technical Information Services

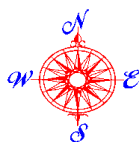
*Updated periodically*

***Environmental FirstSearch***  
***Street Name Report for Streets within .25 Mile(s) of Target Property***

**TARGET SITE:**     ANDERSON ROAD  
                             HONOLULU HI 96844

**JOB:**     904283  
RERUN ASTM 05

Street Name	Dist/Dir	Street Name	Dist/Dir
Aiealani Pl	0.18 SW		
Anderson Rd	0.02 NW		
Baugh Rd	0.05 NW		
Elrod Rd	0.18 SE		
Fernridge Pl	0.23 SW		
Halawa Heights Rd	0.05 NW		
Hele Mauna Pl	0.10 NW		
Palaialii Pl	0.06 NW		
Palaialii Way	0.08 NW		
Thompson Rd	0.13 SE		



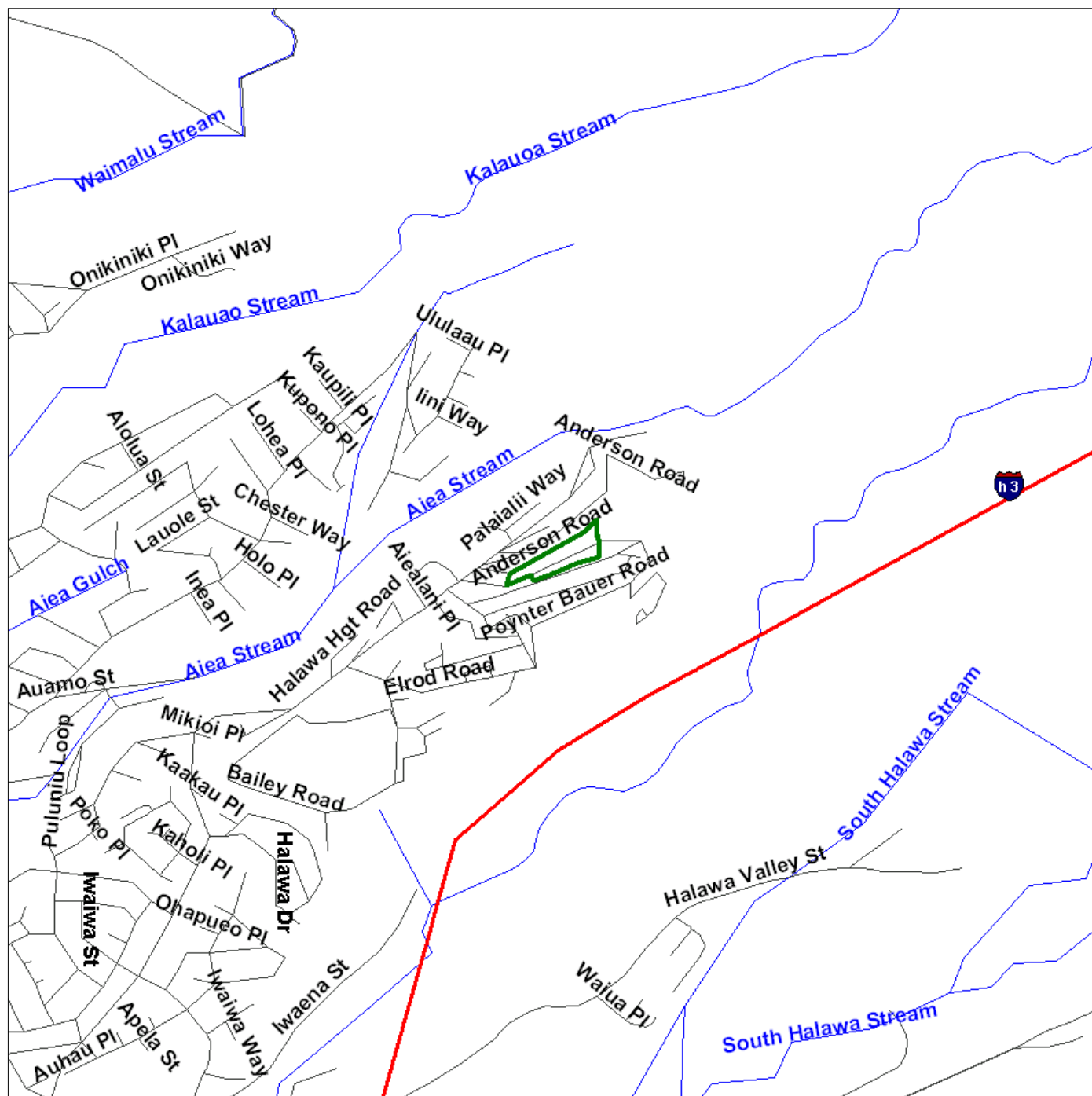
# Environmental FirstSearch

1 Mile Radius from Area

Single Map:

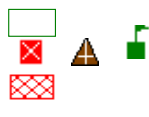


## ANDERSON ROAD , HONOLULU HI 96844



Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....  
Railroads .....



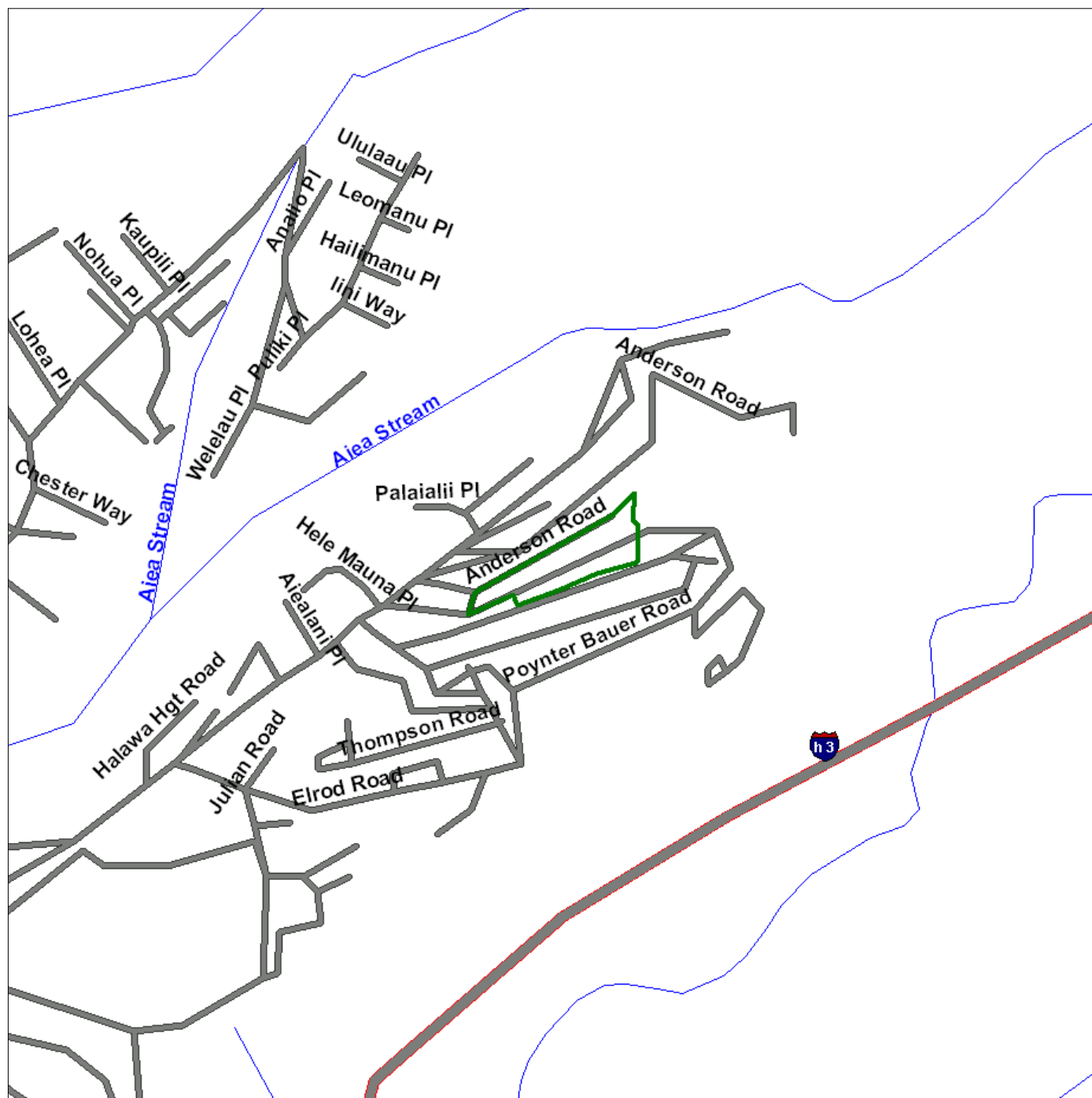


## Environmental FirstSearch

.5 Mile Radius from Area  
AAI: NFRAP, BROWNFIELD

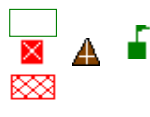


### ANDERSON ROAD , HONOLULU HI 96844



Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....  
Railroads .....



## Appendix B

### HISTORICAL AERIAL PHOTOGRAPHS





Source: *Track Info Services*



NORTH

NO SCALE

1949 Historical Aerial Photograph  
Camp Smith Marine Family Housing





Source: *Track Info Services*



NORTH

NO SCALE

1952 Historical Aerial Photograph  
Camp Smith Marine Family Housing





Source: Track Info Services



NORTH

NO SCALE

1965 Historical Aerial Photograph  
Camp Smith Marine Family Housing



Source: *Track Info Services*



NORTH

NO SCALE

1972 Historical Aerial Photograph  
Camp Smith Marine Family Housing





Source: Track Info Services



NORTH

NO SCALE

1993 Historical Aerial Photograph  
Camp Smith Marine Family Housing



Source: Track Info Services



NORTH

NO SCALE

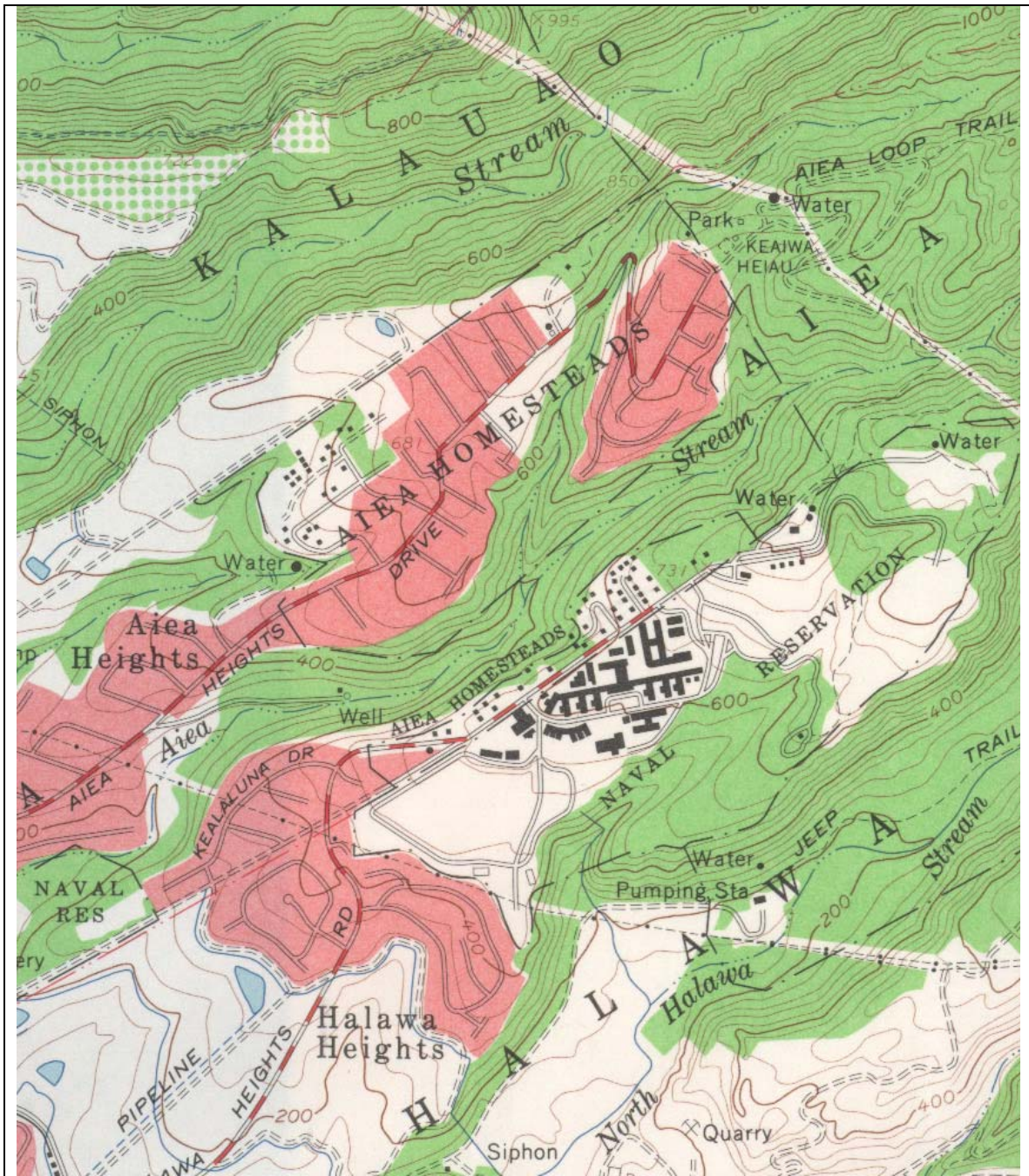
2003 Historical Aerial Photograph  
Camp Smith Marine Family Housing

## Appendix C

### HISTORICAL TOPOGRAPHICAL MAPS







Source: USGS Waipahu, Hawaii Quadrangle, 7.5 Minute Series, 1959 (modified)



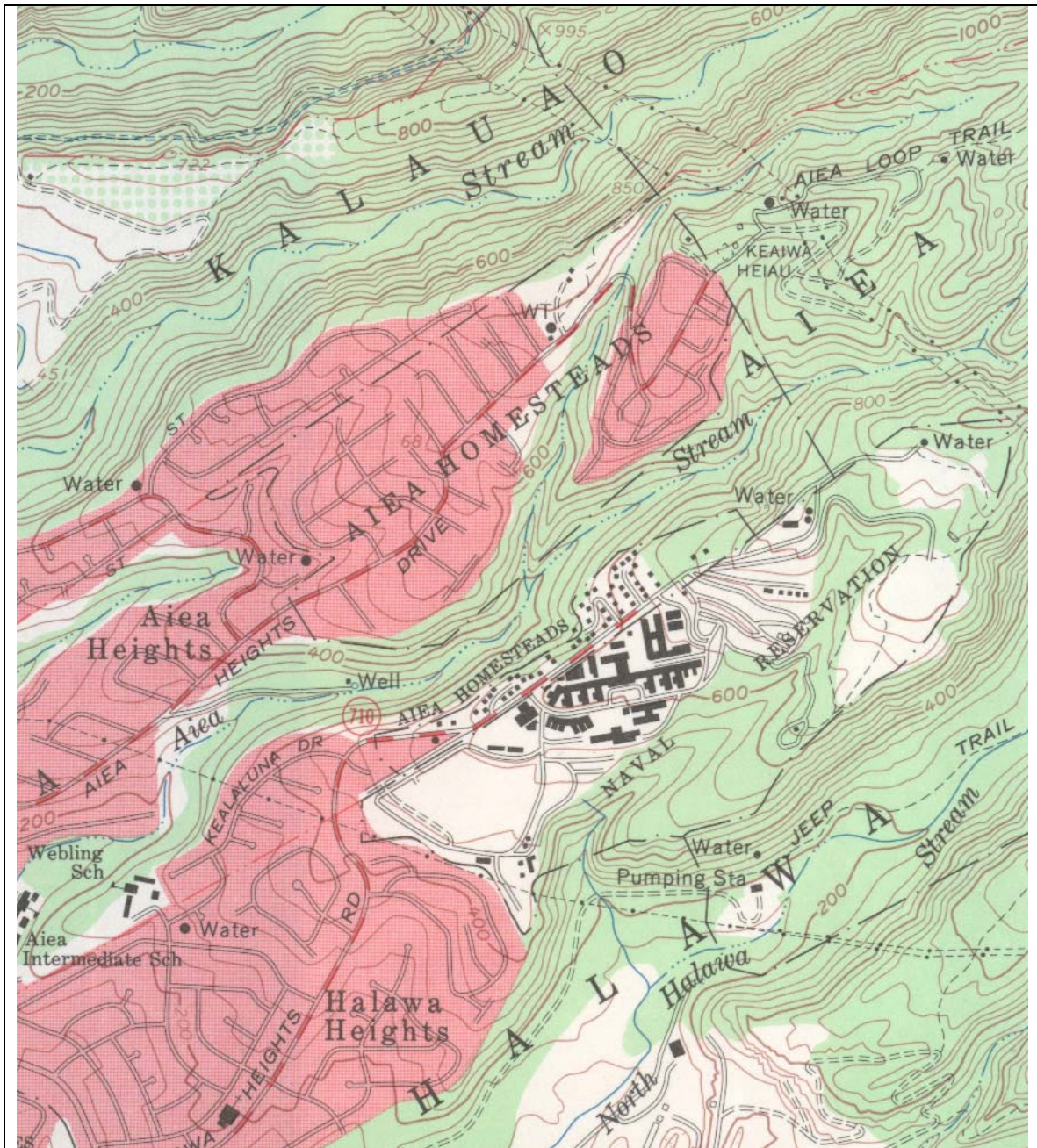
NORTH



1 inch = 1417 feet  
SCALE

1959 Historical Topographic Map  
Camp Smith Marine Family Housing





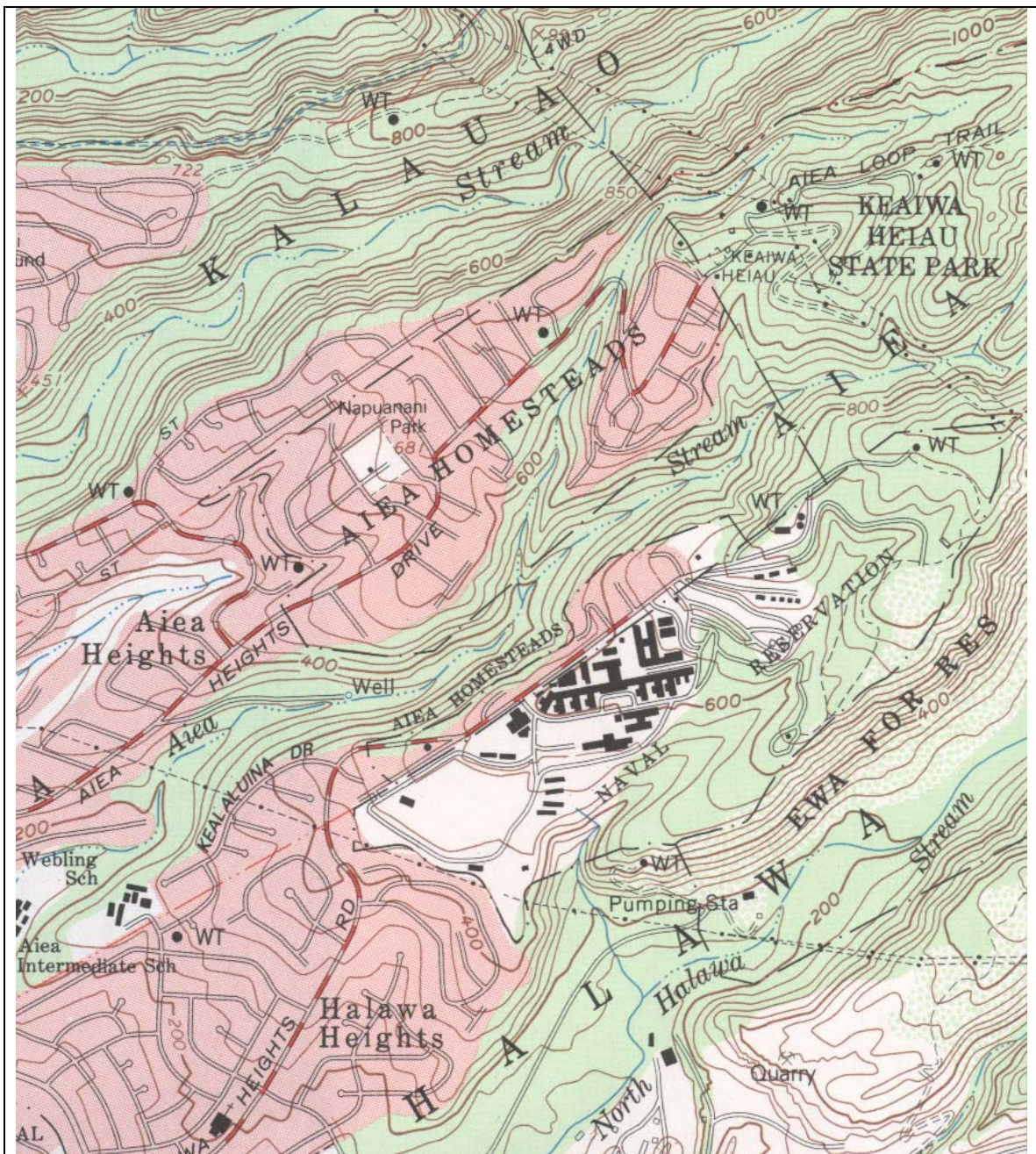
Source: USGS Waipahu, Hawaii Quadrangle, 7.5 Minute Series, 1968 (modified)



1 inch = 1467 feet  
SCALE

1968 Historical Topographic Map  
Camp Smith Marine Family Housing





Source: USGS Waipahu, Hawaii Quadrangle, 7.5 Minute Series, 1983 (modified)



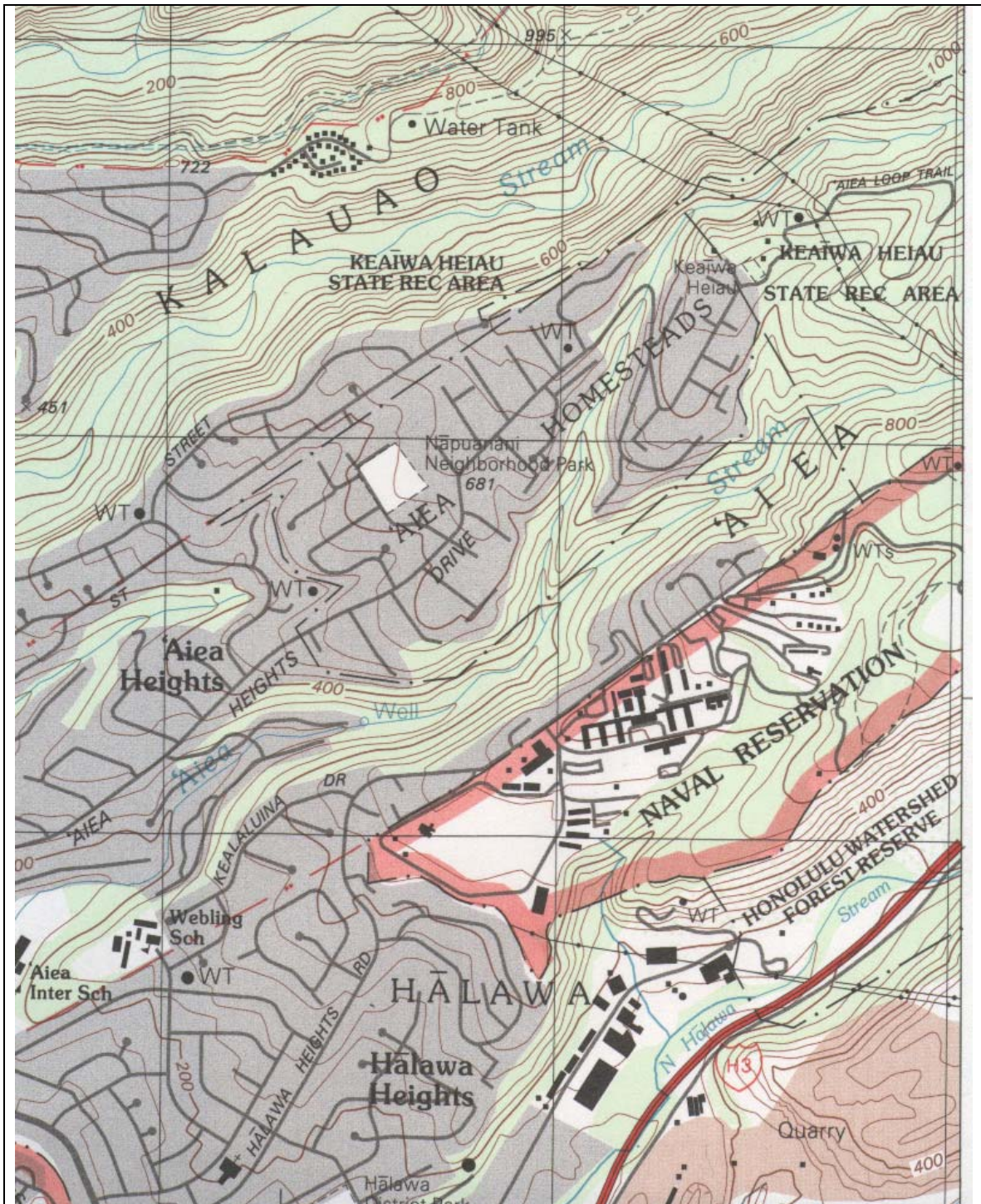
NORTH



1 inch = 1463 feet  
SCALE

1983 Historical Topographic Map  
Camp Smith Marine Family Housing





Source: USGS Waipahu, Hawaii Quadrangle, 7.5 Minute Series, 1998 (modified)



NORTH



1 inch = 1327 feet  
SCALE

1998 Historical Topographic Map  
Camp Smith Marine Family Housing

# ***FINAL PHASE II ENVIRONMENTAL SITE ASSESSMENT***

## ***CAMP SMITH MARINE FAMILY HOUSING AREA***

***Prepared for***



**Honolulu, Hawaii**

**September 2006**

***Prepared by***

**PARSONS**

---

1132 BISHOP STREET, SUITE 2102 • HONOLULU • HAWAII 96813



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## **ACRONYMS AND ABBREVIATIONS**

ACM	Asbestos-containing material
AST	Aboveground Storage Tank
ASTM	American Society of Testing and Materials
bgs	below ground surface
EP	Environmental Professional
EAL	Environmental Action Level
ESA	Environmental Site Assessment
ft	feet
HDOH	Hawaii Department of Health
HUD	United States Department of Housing and Urban Development
kg	Kilograms
LBP	Lead-based paint
LUST	Leaking underground storage tank
m	Meter
mg/kg	milligram per kilogram
PCB	Polychlorinated biphenyl
PE	Professional Engineer
PPV	Public Private Venture
REC	Recognized Environmental Condition
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground storage tank

## **1.0 SUMMARY**

The purpose of this Final Phase II Environmental Site Assessment (ESA) is to present the site-specific results and recommendations from a subsurface investigation of pesticides and lead conducted at the Camp Smith Marine Family Housing Area on the island of Oahu, Hawaii. Parsons completed a Phase 1 ESA which identified potential Recognized Environmental Conditions (RECs) at the site and for which additional investigations were recommended. One of these recommendations included subsurface soil sampling for pesticides prior to planned renovation/demolition activities for new housing developments. In addition, as part of the Phase II investigations lead was analyzed in soil due to concerns over past use of lead-based paint, as described in the Phase I ESA.

The Camp Smith Marine Family Housing Area is located in the Aiea Area of O'ahu, Hawaii. The site is 5.173 acres. The site consists of 10 housing units for Marine personnel. There is no open access to the site; it is located within a secured base. The housing units are primarily single family homes with one duplex. The units were built in 1965 and 1970. The square footage of the units range from 1,268 to 1,971 square feet. The units have 3 to 5 bedrooms, and 2 to 3.5 bathrooms (Ohana, 2006).

The Public Private Venture (PPV) will be the lessee of the site and will be the owner of 10 improvements, of which 10 will be demolished, and will be replaced with 10 newly constructed units.

During the Phase II, shallow soil samples were collected from a statistically representative number of buildings that were areally distributed throughout the neighborhood. For Camp Smith, approximately 33% of the total number of buildings proposed for demolition were sampled. For each building selected for sampling, soil samples were collected from three (3) group locations:

- under the foundation ("sub-slab samples");
- along the outside perimeter of the foundation ("perimeter samples"), generally at a distance of approximately 2 feet from the foundation; and,
- in the front and/or back yards ("common area samples").

In the opinion of the Environmental Professional (EP), the findings and conclusions for the Camp Smith Marine Family Housing Area are:

- 1) As shown on Figure 4, the following compounds exceeded their respective Tier 2 EAL in at least one sample composite:
  - aldrin
  - dieldrin
- 2) No samples had more than three (3) detections of a carcinogenic compound, which is a requirement for use of the Tier 2 EAL comparison criteria.

- 3) Lead concentrations were below the Tier 2 EAL of 400 mg/kg for all samples.
- 4) Of the three buildings sampled, only one building (677 Baugh Road) had samples with pesticide concentrations which exceeded their respective Tier 2 EAL criteria.

The composited perimeter sample collected at 677 Baugh Road (shown on Figure 4) had a detection of 0.62 mg/kg for dieldrin at 1 ft bgs and 0.18 mg/kg for dieldrin at 2 ft bgs. These concentrations both exceed the Tier 2 EAL of 0.10 mg/kg for dieldrin. It should be noted that all three of the perimeter locations for this particular home were collected at a distance of only 6 inches from the foundation slab. Concentrations of dieldrin, as well as aldrin, in the composited sub-slab sample that was also collected at this building were also above their respective Tier 2 EALs.

- 5) With the exception of 677 Baugh Road (as described above), pesticide concentrations in all other perimeter, sub-slab, and common area samples were not above their respective Tier 2 EALs. Because the perimeter samples at 677 Baugh Road were collected at only 6-inches from the slab, pesticide impacted soils appear to be generally confined only to soils underneath the slab itself and/or within a two-foot area immediately adjacent to the slab (i.e. the distance at which most other perimeter samples were collected).
- 6) Concentrations generally attenuated with depth, as shown by the relative concentrations at 1 ft bgs and 2 ft bgs.

Based on these results and conclusions, Parsons recommends that during demolition and construction activities for the Camp Smith neighborhood that soil underneath all existing building foundations and within a two-foot distance of the foundations be managed as pesticide impacted soil according to the "*Pesticide Impacted Soils Management Plan*" (Parsons, 2006). It is the opinion of the EP that mitigation measures for other soil outside of these areas does not appear to be warranted.



## **2.0 INTRODUCTION**

The purpose of this Final Phase II Environmental Site Assessment (ESA) is to present the site-specific results and recommendations from a subsurface investigation of pesticides and lead conducted at the Camp Smith Marine Family Housing Area on the island of Oahu, Hawaii. Parsons completed a Phase I ESA which identified potential Recognized Environmental Conditions (RECs) at the site and for which additional investigations were recommended. One of these recommendations included subsurface soil sampling for pesticides prior to planned renovation/demolition activities for new housing developments. In addition, as part of the Phase II investigations lead was analyzed in soil due to concerns over past use of lead-based paint, as described in the Phase I ESA.

### **SPECIAL TERMS AND CONDITIONS**

- The information and conclusions presented in this report are valid only for the circumstances of the site investigated as described as of the dates in this report.
- Parsons evaluated the reasonableness and completeness of available relevant information, but does not assume responsibility for the truth or accuracy of any information provided to Parsons by others or for the lack of information that is intentionally, unintentionally, or negligently withheld from Parsons by others.
- After acceptance of this report, if Parsons obtains information that it believes warrants further exploration and development, Parsons will endeavor to provide that information, but Parsons will not be liable for not doing so.

### **LIMITATIONS AND EXCEPTIONS OF ASSESSMENT**

To achieve the study objectives stated in this report, Parsons based its conclusions on the best information available during the period of the investigation and in accordance with generally-accepted environmental methodologies.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Professional judgment was exercised in gathering and evaluating the information obtained, and Parsons commits itself to the usual care, thoroughness, and competence of the engineering profession.

### **OTHER RECS IDENTIFIED IN PHASE 1 ESA**

The following RECs were also identified in the Phase 1 ESA and Parsons recommends the following:

- Suspected presence of asbestos-containing materials in building materials — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.



- Suspected presence of lead in paint and dust — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Potential PCB-containing ballasts in fluorescent lighting — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Potential radioactive sources in smoke detectors — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Potential mercury-containing light switches and lamps — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Potential arsenic-containing canec board in building materials — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.

**USER RELIANCE**

This report was prepared for Ohana Military Communities, LLC, its Managing Member and other Members of Ohana Military Communities, LLC. It may be relied upon by Ohana Military Communities, LLC, its Managing Member and other Members of Ohana Military Communities, LLC, the United States of America, Department of the Navy, (b) (4)

, and each of their respective officers, directors, employees, affiliates, successors, assigns, legal counsel and advisors.

## **3.0 BACKGROUND INFORMATION**

### **LOCATION AND DESCRIPTION OF PROPERTY**

The Camp Smith Marine Family Housing Area is located at Latitude (North) 21.393121, Longitude (West) 157.905859. The site consists of 10 housing units for Marine personnel. There is no open access to the site; it is located within a secured base.

The Public Private Venture (PPV) will be the lessee of the site and will be the owner of 10 improvements, of which 10 will be demolished, and will be replaced with 10 newly constructed units.

### **SITE AND VICINITY CHARACTERISTICS**

Table 3-1 provides a description of the properties directly adjacent to the site.

**Table 3-1  
Adjacent Properties**

<b>Direction</b>	<b>Description of Adjacent Properties</b>
North	The Camp Smith military facility continues further north and is mostly forest. In addition there are some residential properties off base across Halawa Heights Rd.
East	The eastern portion of the site consists of a small portion of the Camp Smith military facility and off base across Halawa Heights Rd. is residential housing.
South	The Camp Smith military facility continues further south and the area adjacent to the site is a hillside that is used for parking. .
West	The Camp Smith military facility continues further west and is mostly forest

### **DESCRIPTIONS OF STRUCTURES, ROADS, OTHER IMPROVEMENTS ON THE SITE**

The approximately 5.173-acre, 10 unit, site is primarily occupied. The site is accessible via Halawa Heights Road.

The housing units are primarily single family homes with one duplex. The units were built in 1965 and 1970. The square footage of the units range from 1,268 to 1,971 square feet. The units have 3 to 5 bedrooms, and 2 to 3.5 bathrooms (Ohana, 2006).

Vehicle access to the housing units is via asphalt-paved streets. Typical landscaping bordering the housing units includes grass and trees. The housing units are primarily single family homes with one duplex. Residential parking is along the street on the lower level of houses and provided by attached carports for the upper level houses.

The housing unit construction is primarily cinder block with wood and cement used for porches. Roofing material included asphalt shingles.

#### **GROUNDWATER AND SURFACE WATER**

Groundwater beneath Camp Smith is considered a potential drinking water resource based on its location above the Underground Injection Control (UIC) Line. There are no surface water bodies within 150 meters of the subject property.

#### **LIST OF RECOGNIZED ENVIRONMENTAL CONDITIONS FROM PHASE I ESA**

The following RECs were identified for the site: (1) ACM, (2) LBP, (3) PCB-containing ballasts, (4) smoke detectors, (5) mercury switches in housing units and associated structures, (6) arsenic in canec, and (7) chlordane and other pesticides, including DDT, dieldrin, and heptachlor, in soils.

## **4.0 PHASE II ESA ACTIVITIES**

### **SAMPLING STRATEGY AND METHODS**

Shallow soil samples were collected from a statistically representative number of buildings that were areally distributed throughout the neighborhood (Figure 2). For Camp Smith, approximately 33% of the total number of buildings proposed for demolition were sampled. For each building selected for sampling, soil samples were collected from three (3) group locations:

- 1) under the foundation (“sub-slab samples”);
- 2) along the outside perimeter of the foundation (“perimeter samples”), generally at a distance of approximately 2 feet from the foundation; and,
- 3) in the front and/or back yards (“common area samples”).

At each single family home or duplex selected for sampling, soil samples were collected from a total of approximately seven (7) individual sampling locations (“pushes”) within the above three group locations, as follows:

- 2 locations under the foundation;
- 3 locations along the outside perimeter of the foundation; and,
- 2 locations in the front and/or back yards.

At each individual sampling location or push, discrete samples were collected at two (2) depths: approximately one foot (ft) below ground surface (bgs) and approximately 2 ft bgs. After the samples were collected at each building, all of the related samples from the same group location and the same depth were composited and submitted to a fixed-base laboratory for pesticide and lead analyses. Compositing was performed at the laboratory based on instructions provided on the chain-of-custody form. As a result, each building sampled resulted in approximately 6 representative samples analyzed by the laboratory (i.e. from 3 group locations at 2 depths each). All soil samples were analyzed for pesticides and total lead by EPA methods 8081A and SW6010B, respectively.

Soil samples from the 2 group locations outside of buildings (i.e. the foundation perimeter and yards) were collected using direct-push sampling methods. Soil samples collected from inside buildings (i.e. under the foundation) were collected manually using a slide hammer and sampling tube after drilling through the bottom of the concrete foundation using hand operated electric tools.

### **REGULATORY COMPARISON CRITERIA**

Phase II soil sampling results are compared with Tier 1 or 2 Environmental Action Levels (EALs), consistent with guidance in the Hawaii Department of Health (HDOH, 2005) “*Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*”. EALs are conservative screening concentrations that can be used to assess the potential risks to humans

or the environment. It can be assumed that contaminants of potential concern (COPCs) do not pose a significant threat to human health or the environment when concentrations are less than EALs. However, COPC concentrations greater than EALs do not necessarily indicate unacceptable risks, but typically indicate the need for further evaluation. Under “Tier 1”, site data are compared directly with HDOH generic and conservative Tier 1 EALs. However, HDOH also supports the development of project-specific or site-specific Tier 2 EALs.

Parsons developed proposed project-specific Tier 2 EALs for pesticides that were derived from HDOH human health direct exposure Tier 1 EAL values. These Tier 2 EALs are based on an alternative target cancer risk level of 1E-05 and the potential for cumulative cancer effects from exposure to multiple pesticides. The rationale and development of these proposed Tier 2 EALs are documented in *“Proposed Soil Site-Specific Tier 2 Environmental Action Levels (EALs) for Use During Demolition and Construction at Navy (Phase III) and Marine (Phase II) Housing Communities on Oahu, Hawaii”* and provided under separate cover (Parsons, 2006b). These Tier 2 EALs along with HDOH generic Tier 1 EALs are summarized in Table 4-1.

**TABLE 4-1  
TIER 1 AND 2 ENVIRONMENTAL ACTION LEVELS (EALS) FOR SOIL**

Chemical	Environmental Action Level (EAL) (mg/kg)			
	Tier 1 <sup>a/</sup>	Basis <sup>b/</sup>	Tier 2 (Proposed)	Basis (Direct Exposure) <sup>c/</sup>
4,4'-DDD	2.4	Direct Exposure (cancer)	8.1	Carcinogen
4,4'-DDE	2.4	Direct Exposure (cancer)	8.1	Carcinogen
4,4'-DDT	1.7	Direct Exposure (cancer)	5.7	Carcinogen
Aldrin	0.029	Direct Exposure (cancer)	0.095	Carcinogen
BHC (Lindane)	0.098	Groundwater Protection	1.5	Carcinogen
Chlordane	1.6	Direct Exposure (cancer)	5.4	Carcinogen
Dieldrin	0.0052	Groundwater Protection	0.10	Carcinogen
Endosulfan	0.018	Groundwater Protection	370	Non-Carcinogen
Endrin	0.010	Groundwater Protection	18	Non-Carcinogen
Heptachlor	0.11	Direct Exposure (cancer)	0.36	Carcinogen
Heptachlor epoxide	0.053	Direct Exposure (cancer)	0.18	Carcinogen
Methoxychlor	19	Groundwater Protection	310	Non-Carcinogen
Toxaphene	0.40	Direct Exposure (cancer)	1.3	Carcinogen

<sup>a/</sup> Taken from Table A-1 of HDOH (2005), assuming potable groundwater and the nearest surface water body is >150m.

<sup>b/</sup> The most sensitive endpoint is shown, including cancer or non-cancer toxicologic endpoints (HDOH, 2005).

<sup>c/</sup> Tier 2 EALs based on direct human exposure (Parsons, 2006b); most sensitive endpoint (cancer or non-cancer) is shown.

## **5.0 EVALUATION AND PRESENTATION OF RESULTS**

Laboratory data packages with detailed sampling results are provided in Appendix 1. Graphical presentations summarizing the laboratory results is provided on Figure 3 (for Tier 1 EAL comparisons) and Figure 4 (for Tier 2 EAL comparisons). On these figures, concentrations are shown only for contaminants which exceeded their respective EAL criteria (Table 4-1) at that location.

Locations are identified by sample ID, for example: "0677B-S00" (see Figure 3). The initial part of the sample ID (e.g., "0677B") indicates the address of the building within the neighborhood (in this example, 677 Baugh Road). The second part of the sample ID (e.g., "S00") indicates which of the three sample groups the sample was collected from (in this example, "S00" for the composited sub-slab sample). The sample ID is then followed by the sample depth, 1 ft or 2 ft bgs. For clarity, the sample groupings are also color-coded: green for sub-slab samples, blue for perimeter samples, and red for common area samples.

## **6.0 DISCUSSION OF FINDINGS AND CONCLUSIONS**

For the Camp Smith neighborhood:

- 1) As shown on Figure 4, the following compounds exceeded their respective Tier 2 EAL in at least one sample composite:
  - aldrin
  - dieldrin
- 2) No samples had more than three (3) detections of a carcinogenic compound, which is a requirement for use of the Tier 2 EAL comparison criteria.
- 3) Lead concentrations were below the Tier 2 EAL of 400 mg/kg for all samples.
- 4) Of the three buildings sampled, only one building (677 Baugh Road) had samples with pesticide concentrations which exceeded their respective Tier 2 EAL criteria. Results are shown graphically on Figure 4, where the sub-slab exceedances are shown in green and the perimeter exceedances are shown in blue.

The composited perimeter sample collected at 677 Baugh Road (shown on Figure 4) had a detection of 0.62 mg/kg for dieldrin at 1 ft bgs and 0.18 mg/kg for dieldrin at 2 ft bgs. These concentrations both exceed the Tier 2 EAL of 0.10 mg/kg for dieldrin. It should be noted that all three of the perimeter locations for this particular home were collected at a distance of only 6 inches from the foundation slab. Concentrations of dieldrin, as well as aldrin, in the composited sub-slab sample that was also collected at this building were also above their respective Tier 2 EALs.

- 5) With the exception of 677 Baugh Road (as described above), pesticide concentrations in all other perimeter, sub-slab, and common area samples were not above their respective Tier 2 EALs. Because the perimeter samples at 677 Baugh Road were collected at only 6-inches from the slab, pesticide impacted soils appear to be generally confined only to soils underneath the slab itself and/or within a two-foot area immediately adjacent to the slab (i.e. the distance at which most other perimeter samples were collected).
- 6) Concentrations generally attenuated with depth, as shown by the relative concentrations at 1 ft bgs and 2 ft bgs on Figure 4.

Based on these results and conclusions, Parsons recommends that during demolition and construction activities for the Camp Smith neighborhood that soil underneath all existing building foundations and within a two-foot distance of the foundations be managed as pesticide impacted soil according to the “*Pesticide Impacted Soils Management Plan*” (Parsons, 2006). Mitigation measures for other soil outside of these areas does not appear to be warranted.

## **7.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)**

Parsons declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 of Title 40, Code of Federal Regulations (CFR), Part 312 dated 1 November 2005.

We have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all appropriate inquires in conformance with the standards and practices set forth in 40 CFR 312.

Signature: (b) (6)

Date:

September 2006

(b) (6), P.E.



FIGURES

Figure 1

Camp Smith  
Over Locations

Legend

Sample Types

Common Area (C)

Area Perimeter (P)

Sub-Slab (S)

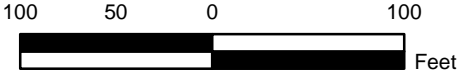
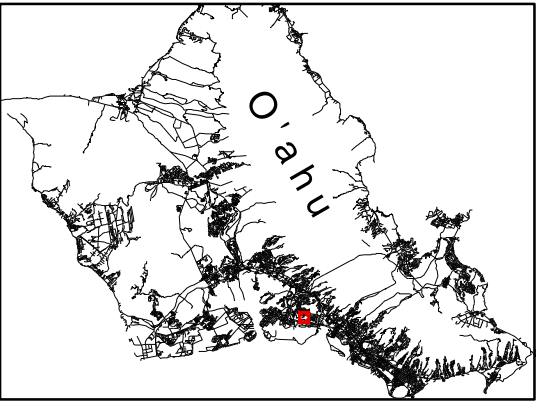
LOCID Definition:  
2231K-C00

Sample ID Definitions:  
00 - Composite Sample  
01 - Individual Sample

Building ID

Sample ID

Sample Type

Note:  
1. All units reported in mg/kg.

Forest City  
Enterprises

DESIGNED BY: GLP	Camp Smith Housing Area O'ahu, Hawaii			
DRAWN BY: GLP				
CHECKED BY: EHH	SCALE: 1 inch equals 100 feet	PROJECT NUMBER: 442221		
SUBMITTED BY: LGL	DATE: August 2006	PAGE NUMBER:	3-x	
	FILE: w:\hawaii\mapfiles\camp_smith\fig1_ov.mxd			

Figure 2

Camp Smith

Sample Locations

Legend

Sample Types

Common Area (C)

Area Perimeter (P)

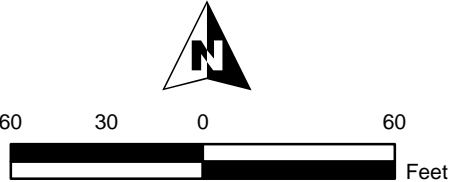
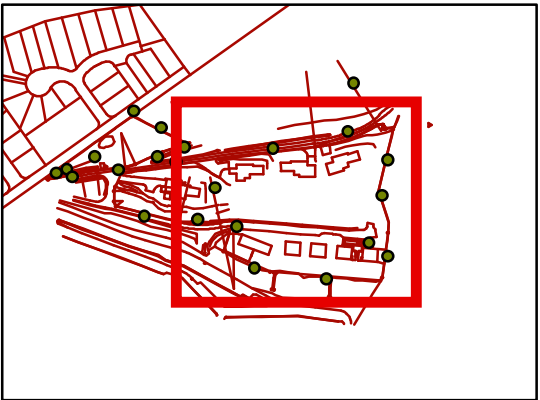
Sub-Slab (S)

LOCID Definition:  
2231K-C00

Building ID | Sample ID  
Sample Type

Sample ID Definitions:  
00 - Composite Sample  
01 - Individual Sample

Note:  
1.



Forest City  
Enterprises

DESIGNED BY:  
GLP

DRAWN BY:  
GLP

CHECKED BY:  
EHH

SUBMITTED BY:  
LGL

Camp Smith Housing  
Area O'ahu, Hawaii

SCALE: 1 inch equals 60 feet	PROJECT NUMBER: 442221
DATE: August 2006	PAGE NUMBER:
FILE: w:\hawaii\mapfiles\camp_smith\fig2_samp_loc.mxd	3-x

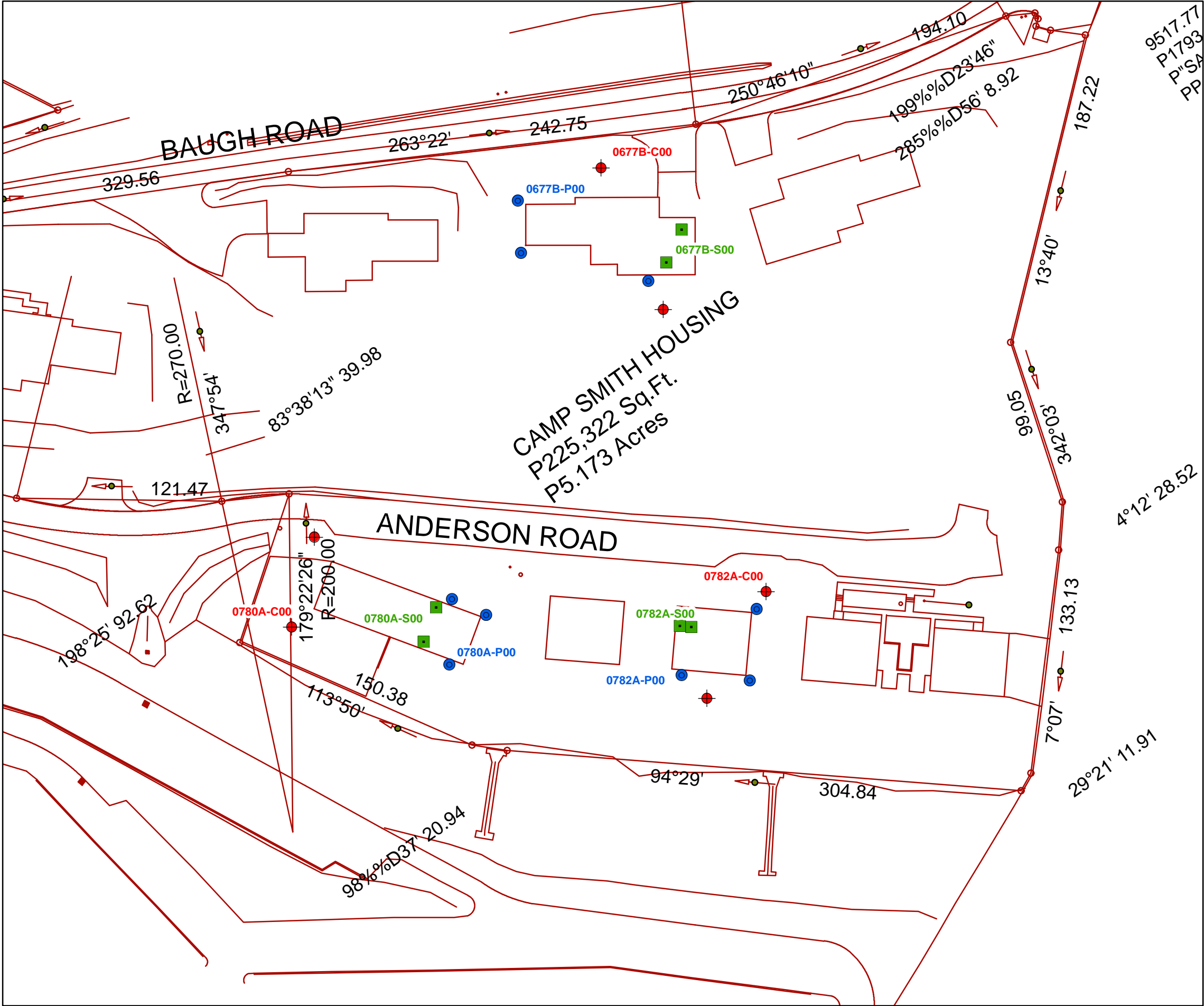


Figure 3  
**Camp Smith**

**Concentrations of Contaminants  
That Exceed HDOH Tier 1  
Environmental Action Levels**

**Legend**

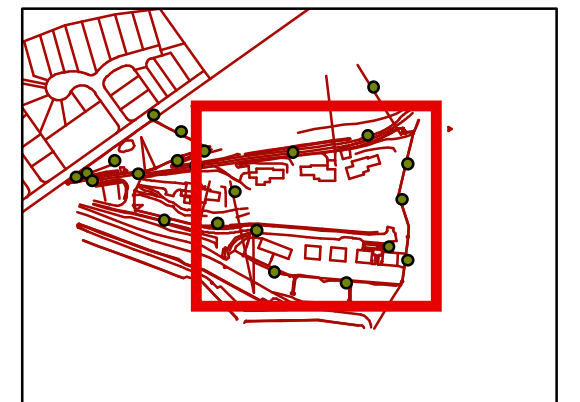
**Sample Types**

- Common Area (C)
- Area Perimeter (P)
- Sub-Slab (S)

LOCID Definition:  
2231K-C00  
Building ID | Sample ID  
Sample Type

Sample ID Definitions:  
00 - Composite Sample  
01 - Individual Sample

Note:  
1. All units reported in mg/kg.



60 30 0 60  
Feet



**Forest City  
Enterprises**

DESIGNED BY: GLP	Camp Smith Housing Area O'ahu, Hawaii		
DRAWN BY: GLP			
CHECKED BY: EHH	SCALE: 1 inch equals 60 feet	PROJECT NUMBER: 442221	
SUBMITTED BY: LGL	DATE: August 2006	PAGE NUMBER:	3-x
	FILE: w:\hawaii\mapfiles\camp_smith\fig3_t1.mxd		

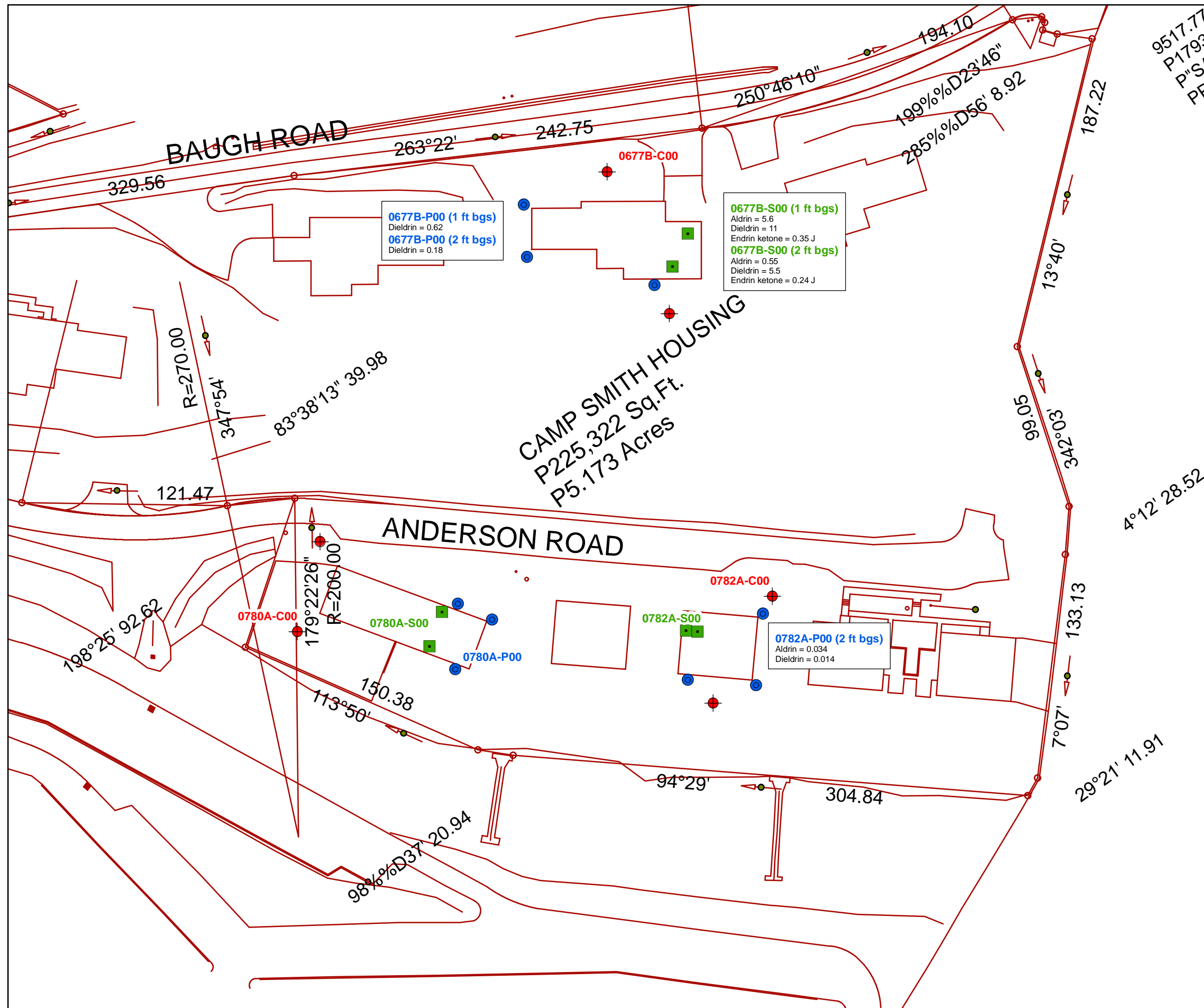




Figure 4

# Camp Smith

Concentrations of Contaminants  
That Exceed Site Specific Tier 2  
Environmental Action Levels

## Legend

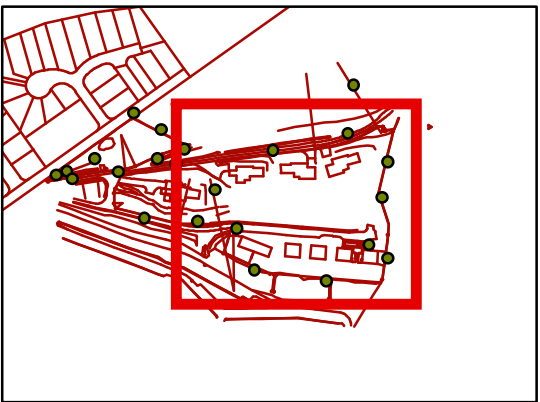
### Sample Types

- Common Area (C)
- Area Perimeter (P)
- Sub-Slab (S)

LOCID Definition:  
2231K-C00  
Building ID | Sample ID  
Sample Type

Sample ID Definitions:  
00 - Composite Sample  
01 - Individual Sample

Note:  
1. All units reported in mg/kg.



Forest City  
Enterprises

DESIGNED BY: GLP	Camp Smith Housing Area O'ahu, Hawaii		
DRAWN BY: GLP			
CHECKED BY: EHH	SCALE: 1 inch equals 60 feet	PROJECT NUMBER: 442221	
SUBMITTED BY: LGL	DATE: August 2006	PAGE NUMBER:	3-x
	FILE: w:\hawaii\mapfiles\camp_smith\Fig4_t2.mxd		

APPENDIX 1 – LABORATORY RESULTS



# STL

**STL Sacramento**  
880 Riverside Parkway  
West Sacramento, CA 95605

Tel: 916 373 5600 Fax: 916 372 1059  
[www.stl-inc.com](http://www.stl-inc.com)

July 27, 2006

**STL SACRAMENTO PROJECT NUMBER: G6F230422**  
**PO/CONTRACT:**

(b) (6)

Parsons Corporation  
1132 Bishop St. Suite 2102  
Honolulu, HI 96813

Dear (b) (6),

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on June 23, 2006. These samples are associated with your 442221 project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (b) (6)

Sincerely,

(b) (6)

Project Manager

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## CASE NARRATIVE

### STL SACRAMENTO PROJECT NUMBER G6F230422

#### **SOLID, 8081A, Pesticides STD List**

Sample(s): 43, 45, 52

These samples were re-extracted outside of the 14 days hold time suggested by the method due to low surrogate recoveries. Both sets of data are reported.

Sample(s): 43, 52

The method blank (MB) associated with these re-extracted samples tested positive for aldrin, dieldrin and 4,4'-DDT. The concentrations were above the method detection limit (MDL) but below 1/2 the reporting limit (RL), therefore the data is reported with no further action.

Samples with positive detections of these analytes have been B flagged.

Insufficient sample volume was available for a matrix spike/matrix spike duplicate (MS/MSD). A laboratory control sample/laboratory control sample duplicate (LCS/LCSD) was prepared instead.

#### **SOLID, 6010B, Pb only**

Samples: 38 through 53

The MSD recovery for lead was below the control limit of 80% at 69%. The LCS as well as the relative percent difference (RPD) between the MS/MSD was in control. Therefore the data is reported with no corrective action.

There were no other anomalies associated with this project.

## STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX 270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666		

\*NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

## QC Parameter Definitions

**QC Batch:** The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

**Method Blank:** An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

**Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD):**

An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

**Duplicate Sample (DU):** Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

**Surrogates:** Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

**Matrix Spike and Matrix Spike Duplicate (MS/MSD):** An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

**Isotope Dilution:** For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

**Control Limits:** The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

## Sample Summary

### G6F230422

<u>WO#</u>	<u>Sample #</u>	<u>Client Sample ID</u>	<u>Sampling Date</u>	<u>Received Date</u>
H75WH	1	782A-3-1	6/22/2006 09:40 AM	6/23/2006 09:00 AM
H75WL	2	782A-4-1	6/22/2006 10:00 AM	6/23/2006 09:00 AM
H75WM	3	782A-5-1	6/22/2006 10:10 AM	6/23/2006 09:00 AM
H75WN	4	782A-3-2	6/22/2006 09:40 AM	6/23/2006 09:00 AM
H75WP	5	782A-4-2	6/22/2006 10:00 AM	6/23/2006 09:00 AM
H75WQ	6	782A-5-2	6/22/2006 10:10 AM	6/23/2006 09:00 AM
H75WR	7	780A-7-1	6/22/2006 11:00 AM	6/23/2006 09:00 AM
H75WT	8	780A-8-1	6/22/2006 11:10 AM	6/23/2006 09:00 AM
H75WV	9	780A-7-2	6/22/2006 11:00 AM	6/23/2006 09:00 AM
H75WW	10	780A-8-2	6/22/2006 11:10 AM	6/23/2006 09:00 AM
H75WX	11	780A-1-1	6/22/2006 10:40 AM	6/23/2006 09:00 AM
H75W0	12	780A-2-1	6/22/2006 10:50 AM	6/23/2006 09:00 AM
H75W1	13	780A-1-2	6/22/2006 10:40 AM	6/23/2006 09:00 AM
H75W2	14	780A-2-2	6/22/2006 10:50 AM	6/23/2006 09:00 AM
H75W3	15	780A-3-1	6/22/2006 10:15 AM	6/23/2006 09:00 AM
H75W4	16	780A-4-1	6/22/2006 10:20 AM	6/23/2006 09:00 AM
H75W5	17	780A-5-1	6/22/2006 10:30 AM	6/23/2006 09:00 AM
H75W6	18	780A-3-2	6/22/2006 10:15 AM	6/23/2006 09:00 AM
H75W8	19	780A-4-2	6/22/2006 10:20 AM	6/23/2006 09:00 AM
H75W9	20	780A-5-2	6/22/2006 10:30 AM	6/23/2006 09:00 AM
H75XA	21	2579J-3-2	6/21/2006 01:15 PM	6/23/2006 09:00 AM
H75XC	22	2579J-4-2	6/21/2006 01:30 PM	6/23/2006 09:00 AM
H75XD	23	2579J-5-2	6/21/2006 01:40 PM	6/23/2006 09:00 AM
H75XE	24	2579J-1-1	6/21/2006 01:20 PM	6/23/2006 09:00 AM
H75XF	25	2579J-2-1	6/21/2006 01:55 PM	6/23/2006 09:00 AM
H75XG	26	2579J-1-2	6/21/2006 01:20 PM	6/23/2006 09:00 AM
H75XJ	27	2579J-2-2	6/21/2006 01:55 PM	6/23/2006 09:00 AM
H75XK	28	2579J-7-1	6/21/2006 01:15 PM	6/23/2006 09:00 AM
H75XL	29	2579J-8-1	6/21/2006 01:30 PM	6/23/2006 09:00 AM
H75XM	30	782A-7-1	6/22/2006 09:15 AM	6/23/2006 09:00 AM
H75XN	31	782A-8-1	6/22/2006 09:30 AM	6/23/2006 09:00 AM
H75XP	32	782A-7-2	6/22/2006 09:15 AM	6/23/2006 09:00 AM
H75XQ	33	782A-8-2	6/22/2006 09:30 AM	6/23/2006 09:00 AM
H75XT	34	782A-1-1	6/22/2006 09:50 AM	6/23/2006 09:00 AM
H75XV	35	782A-2-1	6/22/2006 10:15 AM	6/23/2006 09:00 AM
H75XW	36	782A-2-2	6/22/2006 10:15 AM	6/23/2006 09:00 AM
H75X0	37	782A-1-2	6/22/2006 09:50 AM	6/23/2006 09:00 AM
H75X1	38	782A-3-1,4-1,5-1 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H75X1	38	782A-3-1,4-1,5-1 COMPOSITE DUP	6/22/2006	6/23/2006 09:00 AM
H750K	39	782A-3-2,4-2,5-2 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750L	40	780A-7-1,8-1 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750N	41	780A-7-2,8-2 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750P	42	780A-1-1,2-1 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750Q	43	780A-1-2,2-2 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750R	44	780A-3-1,4-1,5-1 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750T	45	780A-3-2,4-2,5-2 COMPOSITE	6/22/2006	6/23/2006 09:00 AM
H750V	46	2579J-1-1,2-1 COMPOSITE	6/21/2006	6/23/2006 09:00 AM

## Sample Summary

### G6F230422

H750W	47	2579J-1-2,2-2 COMPOSITE	6/21/2006	6/23/2006 09:00 AM
H750X	48	2579J-7-1,8-1 COMPOSITE	6/21/2006	6/23/2006 09:00 AM
H7500	49	782A-7-1,8-1 COMPOSITE	6/21/2006	6/23/2006 09:00 AM
H7501	50	782A-7-2,8-2 COMPOSITE	6/21/2006	6/23/2006 09:00 AM
H7502	51	782A-1-1,2-1 COMPOSITE	6/21/2006	6/23/2006 09:00 AM
H7503	52	782A-2-2,1-2 COMPOSITE	6/21/2006	6/23/2006 09:00 AM
H78DW	53	2479J-3-2,4-2,5-2 COMPOSITE	6/21/2006	6/23/2006 09:00 AM

#### Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight

# CHAIN-OF-CUSTODY RECORD

CLIENT: Parsons  
 ADDRESS: 1132 Bishop St. #2102  
 PHONE: 808-748-7576 FAX: 808-748-7575  
 EMAIL: (b) (6) @parsons.com  
 CLIENT PROJECT #: 442221 Project Manager: (b) (6)

TAT (circle one): 24-hr. 48-hr. 5-day or Other: STP  
 DATE: 6-22-06 PAGE 4 OF 5  
 ESN PROJECT #:  
 LOCATION/PROJECT NAME: Forest City  
 COLLECTOR: KB / BM DATE COLLECTED: 6-22-06

Sample ID#	Depth	Time	Sample Type	Container Type	8021b HVOC	8021b VOC	8021b BTEX	8021b MIBE	8015 Fuel Scan	8015 TPH-Gas	8015 TPH-Diesel	8015 TPH-Oil	8081 Pest.	8082 PCB	8100 PAH	8270 PAH	1010 FlashPoint	RCRA 8 Metals	Total: Pb Cd Cr As Hg or TCLP	lead 6010	Comments	# of Containers	
1 782A-3-1	1.0	0940	Soil	402 jar																		} composite	1
2 782A-4-1	1.0	1000											X							X			1
3 782A-5-1	1.0	1010																				} composite	1
4 782A-3-2	2.0	0940																					1
5 782A-4-2	2.0	1000											X								X	} composite	1
6 782A-5-2	2.0	1010																					1
7 780A-7-1	1.0	1100																				} composite	1
8 780A-8-1	1.0	1110											X								X		1
9 780A-7-2	2.0	1100																				} composite	1
10 780A-8-2	2.0	1110											X								X		1
11 780A-1-1	1.0	1040																				} composite	1
12 780A-2-1	1.0	1050											X								X		1
13 780A-1-2	2.0	1040																				} composite	1
14 780A-2-2	2.0	1050											X								X		1
15 780A-3-1	1.0	1015																				} composite	1
16 780A-4-1	1.0	1020											X								X		1
17 780A-5-1	1.0	1030																				} composite	1
18 780A-3-2	2.0	1015																					1
19 780A-4-2	2.0	1020											X								X	} composite	1
20 780A-5-2	2.0	1030	↓	↓																			1

RELINQUISHED BY: (Signature) <u>(b) (6)</u>	DATE/TIME <u>6-22-06/1500</u>	RECEIVED BY: (Signature) <u>(b) (6)</u>	DATE/TIME <u>6-22-06/1307</u>	SAMPLE RECEIPT: TOTAL # OF CONTAINERS _____ COC SEALS Y / N / NA _____ SEALS INTACT Y / N / NA _____ RECEIVED TEMP: _____	LABORATORY NOTES:
SAMPLE DISPOSAL INSTRUCTIONS: _____ ESN Dispose @ \$2.00/sample or _____ Return to Client					

68F280422

STL Sacramento (916) 313-5600

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# CHAIN-OF-CUSTODY RECORD

CLIENT: Parsons  
 ADDRESS: 1132 Bishop St. #2102  
 PHONE: 808-748-7574 FAX: 808-748-7575  
 EMAIL: (b) (6) parsons.com  
 CLIENT PROJECT #: 442221 Project Manager: (b) (6)

TAT (circle one): 24-hr. 48-hr. 5-day or Other: STO  
 DATE: 6-22-06 PAGE 5 OF 5  
 ESN PROJECT #:  
 LOCATION/PROJECT NAME: Forest City  
 COLLECTOR: BM / KB DATE COLLECTED: 6-21-06

Sample ID#	Depth	Time	Sample Type	Container Type	8021b HVOC	8021b VOC	8021b BTEX	8021b MIBE	8015 Fuel Scan	8015 TPH-Gas	8015 TPH-Diesel	8015 TPH-Oil	8081 Pest.	8082 PCB	8100 PAH	8270 PAH	1010 FlashPoint	RCRA 8 Metals	Total: Pb Cd Cr As Hg or TCLP	lead 6010	Comments	# of Containers
1 2579J-3-2	2.0	1315	soil	4oz jar																		1
2 2579J-4-2	2.0	1330											X							X	composite	1
3 2579J-5-2	2.0	1340																				1
4 2579J-1-1	1.0	1320																				1
5 2579J-32-1	1.0	1355											X							X	composite	1
6 2579J-1-2	2.0	1330																				1
7 2579J-2-2	2.0	1355											X							X	composite	1
8 2579J-7-1	1.0	1315											X							X	composite	1
9 2579J-8-1	1.0	1330																				1
10 2579J-7-2	2.0																					1
11 2579J-8-2	2.0	1330											X							X	composite	1
12 782A-7-1	1.0	0915																				1
13 782A-8-1	1.0	0930											X							X	composite	1
14 782A-7-2	2.0	0915																				1
15 782A-8-2	2.0	0930											X							X	composite	1
16 782A-1-1	1.0	0950																				1
17 782A-2-1	1.0	1015											X							X	composite	1
18 782A-2-2	2.0	1015																				1
19 782A-1-2	2.0	0950											X							X	composite	1
20																						

RELINQUISHED BY: (Signature) (b) (6) DATE/TIME 6-21-06/1500  
 RELINQUISHED BY: (Signature) DATE/TIME RECIEVED BY (Signature) DATE/TIME (b) (6) 6/23/06

SAMPLE RECEIPT:  
 TOTAL # OF CONTAINERS  
 COC SEALS Y / N / NA  
 SEALS INTACT Y / N / NA  
 RECEIVED TEMP:  
 LABORATORY NOTES:

SAMPLE DISPOSAL INSTRUCTIONS: ESN Dispose @ \$2.00/sample or Return to Client



# STL

## LOT RECEIPT CHECKLIST STL Sacramento

CLIENT Parsons PM PP LOG # 39615  
LOT# (QUANTIMS ID) G6F230422 QUOTE# 70792 LOCATION W21E

DATE RECEIVED 6/23/06 TIME RECEIVED 0900 Initials ME Date 6/23/06

DELIVERED BY ☒ FEDEX ☐ CA OVERNIGHT ☐ CLIENT  
☐ AIRBORNE ☐ GOLDENSTATE ☐ DHL  
☐ UPS ☐ BAX GLOBAL ☐ GO-GETTERS  
☐ STL COURIER ☐ COURIERS ON DEMAND  
☐ OTHER

CUSTODY SEAL STATUS ☐ INTACT ☐ BROKEN ☒ N/A

CUSTODY SEAL #(S) \_\_\_\_\_

SHIPPING CONTAINER(S) ☒ STL ☐ CLIENT ☐ N/A

TEMPERATURE RECORD (IN °C) IR 1 ☐ 3 ☒ OTHER \_\_\_\_\_

COC #(S) \_\_\_\_\_

TEMPERATURE BLANK Observed: \_\_\_\_\_ Corrected: \_\_\_\_\_

SAMPLE TEMPERATURE  
Observed: 5 4 2 8 6 Average: 6 Corrected Average: 6

COLLECTOR'S NAME: ☒ Verified from COC ☒ Not on COC

pH MEASURED ☐ YES ☐ ANOMALY ☒ N/A

LABELED BY.....

LABELS CHECKED BY.....

PEER REVIEW ☒ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING

WETCHEM ☒ N/A

VOA-ENCORES ☒ N/A

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☒ N/A

☒ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A

☐ Clouseau ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)\*1 ☒ N/A

☒ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED

Notes: \_\_\_\_\_



Lot

ID:

G6F230422

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	37
VOA*																					
VOAh*																					
AGB																					
AGBs																					
250AGB																					
250AGBs																					
250AGBn																					
500AGB																					
AGJ																					
500AGJ																					
250AGJ																					
125AGJ																					
CGJ																					
500CGJ																					
250CGJ																					
125CGJ																					
PJ																					
PJn																					
500PJ																					
500PJn																					
500PJna																					
500PJzn/na																					
250PJ																					
250PJn																					
250PJna																					
250PJzn/na																					
Acetate Tube																					
CT																					
Encore																					
Folder/filter																					
PUF																					
Petri/Filter																					
KAD Trap																					
Ziploc																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	37

= hydrochloric acid s = sulfuric acid na = sodium hydroxide n = nitric acid zn = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

38 39 40 41 ~~42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60~~ ~~52~~ → 52

VOA																			
VOAh																			
AGB																			
AGBs																			
250AGB																			
250AGBs																			
250AGBn																			
250AGBna																			
AGJ																			
500AGJ																			
250AGJ																			
125AGJ																			
CGJ																			
500CGJ	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
250CGJ																			
125CGJ																			
PB/PJ																			
PBn/PJn																			
500PB/PJ																			
500PBn/PJn																			
500PBna																			
500PBzn/na																			
50PB																			
50PBn																			
50PBna																			
50PBzn/na																			
"CT																			
ncore																			
older/Filter																			
UF																			
etri/Filter																			
AD Trap																			
iploc																			

~~41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60~~

38 ~~52~~ 53 11/26/06

= hydrochloric acid    s = sulfuric acid    na = sodium hydroxide    n = nitric acid    zn = zinc acetate

Number of VOA's with air bubbles present / total number of VOA's

# SOLID, 8081A, Pesticides STD List

Parsons Corporation

Client Sample ID: 782A-3-1,4-1,5-1 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-038      Work Order #....: H75X11AA      Matrix.....: SOLID  
 Date Sampled....: 06/22/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/14/06  
 Prep Batch #....: 6184405  
 Dilution Factor: 1  
 % Moisture.....: 28      Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	2.4	ug/kg	0.16
gamma-BHC (Lindane)	ND	2.4	ug/kg	0.18
Heptachlor	ND	2.4	ug/kg	0.23
Aldrin	ND	2.4	ug/kg	0.16
beta-BHC	ND	2.4	ug/kg	0.16
delta-BHC	ND	2.4	ug/kg	0.092
Heptachlor epoxide	2.0 J	2.4	ug/kg	0.15
Endosulfan I	ND	2.4	ug/kg	0.24
gamma-Chlordane	ND	2.4	ug/kg	0.22
alpha-Chlordane	6.3	2.4	ug/kg	0.30
4,4'-DDE	2.0 J	4.8	ug/kg	0.35
Dieldrin	2.6 J	4.8	ug/kg	0.31
Endrin	ND	4.8	ug/kg	0.41
4,4'-DDD	ND	4.8	ug/kg	0.37
Endosulfan II	ND	4.8	ug/kg	0.43
4,4'-DDT	2.0 J	4.8	ug/kg	0.18
Endrin aldehyde	ND	4.8	ug/kg	0.24
Methoxychlor	ND	24	ug/kg	1.8
Endosulfan sulfate	ND	4.8	ug/kg	0.30
Endrin ketone	ND	4.8	ug/kg	0.33
Toxaphene	ND	94	ug/kg	30

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	81	(55 - 130)
Tetrachloro-m-xylene	87	(70 - 125)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: 782A-3-2,4-2,5-2 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-039      Work Order #....: H750K1AA      Matrix.....: SOLID  
 Date Sampled...: 06/22/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/18/06  
 Prep Batch #....: 6184405  
 Dilution Factor: 2  
 % Moisture.....: 27      Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	4.7	ug/kg	0.32
gamma-BHC (Lindane)	ND	4.7	ug/kg	0.35
Heptachlor	ND	4.7	ug/kg	0.45
<b>Aldrin</b>	<b>34</b>	<b>4.7</b>	<b>ug/kg</b>	<b>0.31</b>
beta-BHC	ND	4.7	ug/kg	0.32
delta-BHC	ND	4.7	ug/kg	0.18
Heptachlor epoxide	ND	4.7	ug/kg	0.29
Endosulfan I	ND	4.7	ug/kg	0.47
gamma-Chlordane	ND	4.7	ug/kg	0.43
alpha-Chlordane	ND	4.7	ug/kg	0.58
4,4'-DDE	ND	9.3	ug/kg	0.69
<b>Dieldrin</b>	<b>14</b>	<b>9.3</b>	<b>ug/kg</b>	<b>0.61</b>
Endrin	ND	9.3	ug/kg	0.80
4,4'-DDD	ND	9.3	ug/kg	0.72
Endosulfan II	ND	9.3	ug/kg	0.84
<b>4,4'-DDT</b>	<b>1.7 J</b>	<b>9.3</b>	<b>ug/kg</b>	<b>0.36</b>
Endrin aldehyde	ND	9.3	ug/kg	0.47
Methoxychlor	ND	47	ug/kg	3.4
Endosulfan sulfate	ND	9.3	ug/kg	0.59
Endrin ketone	ND	9.3	ug/kg	0.64
Toxaphene	ND	180	ug/kg	58

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	75	(55 - 130)
Tetrachloro-m-xylene	73	(70 - 125)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: 780A-7-1,8-1 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-040      Work Order #....: H750L1AA      Matrix.....: SOLID  
 Date Sampled....: 06/22/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/14/06  
 Prep Batch #....: 6184405  
 Dilution Factor: 100  
 % Moisture.....: 26      Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	230	ug/kg	16
gamma-BHC (Lindane)	ND	230	ug/kg	17
Heptachlor	ND	230	ug/kg	22
Aldrin	ND	230	ug/kg	15
beta-BHC	ND	230	ug/kg	16
delta-BHC	ND	230	ug/kg	8.9
Heptachlor epoxide	ND	230	ug/kg	14
Endosulfan I	ND	230	ug/kg	23
gamma-Chlordane	410	230	ug/kg	21
alpha-Chlordane	350	230	ug/kg	29
4,4'-DDE	ND	460	ug/kg	34
Dieldrin	ND	460	ug/kg	30
Endrin	ND	460	ug/kg	40
4,4'-DDD	ND	460	ug/kg	35
Endosulfan II	ND	460	ug/kg	42
4,4'-DDT	ND	460	ug/kg	18
Endrin aldehyde	ND	460	ug/kg	23
Methoxychlor	ND	2300	ug/kg	170
Endosulfan sulfate	ND	460	ug/kg	29
Endrin ketone	ND	460	ug/kg	32
Toxaphene	ND	9100	ug/kg	2900

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	0.0 SRD	(55 - 130)
Tetrachloro-m-xylene	0.0 SRD	(70 - 125)

NOTE(S) :

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.  
 Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 780A-7-2,8-2 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-041      Work Order #....: H750N1AA      Matrix.....: SOLID  
 Date Sampled....: 06/22/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/14/06  
 Prep Batch #....: 6184405  
 Dilution Factor: 100  
 % Moisture.....: 25      Method.....: SW846 8031A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
alpha-BHC	ND	230	ug/kg	16
gamma-BHC (Lindane)	ND	230	ug/kg	17
Heptachlor	38 J	230	ug/kg	22
Aldrin	ND	230	ug/kg	15
beta-BHC	ND	230	ug/kg	16
delta-BHC	ND	230	ug/kg	8.8
Heptachlor epoxide	ND	230	ug/kg	14
Endosulfan I	ND	230	ug/kg	23
gamma-Chlordane	350	230	ug/kg	21
alpha-Chlordane	350	230	ug/kg	28
4,4'-DDE	ND	450	ug/kg	34
Dieldrin	ND	450	ug/kg	30
Endrin	ND	450	ug/kg	39
4,4'-DDD	ND	450	ug/kg	35
Endosulfan II	ND	450	ug/kg	41
4,4'-DDT	ND	450	ug/kg	17
Endrin aldehyde	ND	450	ug/kg	23
Methoxychlor	ND	2300	ug/kg	170
Endosulfan sulfate	ND	450	ug/kg	29
Endrin ketone	ND	450	ug/kg	31
Toxaphene	ND	9000	ug/kg	2900

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Decachlorobiphenyl	0.0 SRD	(55 - 130)
Tetrachloro-m-xylene	0.0 SRD	(70 - 125)

NOTE (S) :

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.



Parsons Corporation

Client Sample ID: 780A-1-1,2-1 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-042      Work Order #....: H750P1AA      Matrix.....: SOLID  
 Date Sampled....: 06/22/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/14/06  
 Prep Batch #....: 6184405  
 Dilution Factor: 1  
 % Moisture.....: 24      Method.....: SW846 8031A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	2.3	ug/kg	0.15
gamma-BHC (Lindane)	ND	2.3	ug/kg	0.17
Heptachlor	ND	2.3	ug/kg	0.22
Aldrin	ND	2.3	ug/kg	0.15
beta-BHC	ND	2.3	ug/kg	0.16
delta-BHC	ND	2.3	ug/kg	0.087
Heptachlor epoxide	ND	2.3	ug/kg	0.14
Endosulfan I	ND	2.3	ug/kg	0.23
gamma-Chlordane	ND	2.3	ug/kg	0.21
alpha-Chlordane	1.2 J	2.3	ug/kg	0.28
4,4'-DDE	0.90 J, PG	4.5	ug/kg	0.33
Dieldrin	ND	4.5	ug/kg	0.30
Endrin	ND	4.5	ug/kg	0.39
4,4'-DDD	ND	4.5	ug/kg	0.35
Endosulfan II	ND	4.5	ug/kg	0.41
4,4'-DDT	0.90 J	4.5	ug/kg	0.17
Endrin aldehyde	ND	4.5	ug/kg	0.23
Methoxychlor	ND	23	ug/kg	1.7
Endosulfan sulfate	ND	4.5	ug/kg	0.29
Endrin ketone	ND	4.5	ug/kg	0.31
Toxaphene	ND	89	ug/kg	28

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	75	(55 - 130)
Tetrachloro-m-xylene	77	(70 - 125)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Parsons Corporation

Client Sample ID: 780A-1-2,2-2 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-043      Work Order #....: H750Q1AA      Matrix.....: SOLID  
 Date Sampled....: 06/22/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/14/06  
 Prep Batch #....: 6184405  
 Dilution Factor: 1  
 % Moisture.....: 27      Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	2.3	ug/kg	0.16
gamma-BHC (Lindane)	ND	2.3	ug/kg	0.18
Heptachlor	ND	2.3	ug/kg	0.23
<b>Aldrin</b>	<b>0.79 J, PG</b>	<b>2.3</b>	<b>ug/kg</b>	<b>0.16</b>
beta-BHC	ND	2.3	ug/kg	0.16
delta-BHC	ND	2.3	ug/kg	0.090
Heptachlor epoxide	ND	2.3	ug/kg	0.15
Endosulfan I	ND	2.3	ug/kg	0.24
gamma-Chlordane	ND	2.3	ug/kg	0.21
alpha-Chlordane	ND	2.3	ug/kg	0.29
4,4'-DDE	ND	4.7	ug/kg	0.35
<b>Dieldrin</b>	<b>0.43 J</b>	<b>4.7</b>	<b>ug/kg</b>	<b>0.31</b>
Endrin	ND	4.7	ug/kg	0.40
4,4'-DDD	ND	4.7	ug/kg	0.36
Endosulfan II	ND	4.7	ug/kg	0.42
<b>4,4'-DDT</b>	<b>0.68 J, PG</b>	<b>4.7</b>	<b>ug/kg</b>	<b>0.18</b>
Endrin aldehyde	ND	4.7	ug/kg	0.24
Methoxychlor	ND	23	ug/kg	1.7
Endosulfan sulfate	ND	4.7	ug/kg	0.30
Endrin ketone	ND	4.7	ug/kg	0.32
Toxaphene	ND	92	ug/kg	29

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	54 *	(55 - 130)
Tetrachloro-m-xylene	66 *	(70 - 125)

**NOTE (S) :**

\* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

PG The percent difference between the original and confirmation analyses is greater than 40%.

Parsons Corporation

Client Sample ID: 780A-1-2,2-2 COMPOSITE

GC Semivolatiles

Lot-Sample #...: G6F230422-043      Work Order #...: H750Q2AA      Matrix.....: SOLID  
 Date Sampled...: 06/22/06      Date Received...: 06/23/06  
 Prep Date.....: 07/20/06      Analysis Date...: 07/21/06  
 Prep Batch #...: 6201303  
 Dilution Factor: 1  
 % Moisture.....: 27      Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	2.3	ug/kg	0.16
gamma-BHC (Lindane)	ND	2.3	ug/kg	0.18
Heptachlor	ND	2.3	ug/kg	0.23
<b>Aldrin</b>	<b>14 B</b>	<b>2.3</b>	<b>ug/kg</b>	<b>0.16</b>
beta-BHC	ND	2.3	ug/kg	0.16
delta-BHC	ND	2.3	ug/kg	0.090
Heptachlor epoxide	ND	2.3	ug/kg	0.15
Endosulfan I	ND	2.3	ug/kg	0.24
gamma-Chlordane	ND	2.3	ug/kg	0.21
alpha-Chlordane	ND	2.3	ug/kg	0.29
4,4'-DDE	ND	4.7	ug/kg	0.35
<b>Dieldrin</b>	<b>4.0 J, B</b>	<b>4.7</b>	<b>ug/kg</b>	<b>0.31</b>
Endrin	ND	4.7	ug/kg	0.40
4,4'-DDD	ND	4.7	ug/kg	0.36
Endosulfan II	ND	4.7	ug/kg	0.42
<b>4,4'-DDT</b>	<b>0.41 J, B</b>	<b>4.7</b>	<b>ug/kg</b>	<b>0.18</b>
Endrin aldehyde	ND	4.7	ug/kg	0.24
Methoxychlor	ND	23	ug/kg	1.7
Endosulfan sulfate	ND	4.7	ug/kg	0.30
Endrin ketone	ND	4.7	ug/kg	0.32
Toxaphene	ND	92	ug/kg	29

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	79	(55 - 130)
Tetrachloro-m-xylene	88	(70 - 125)

**NOTE (S) :**

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: 780A-3-1,4-1,5-1 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-044      Work Order #....: H750R1AA      Matrix.....: SOLID  
 Date Sampled....: 06/22/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/14/06  
 Prep Batch #....: 6184405  
 Dilution Factor: 5  
 % Moisture.....: 25      Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	11	ug/kg	0.78
gamma-BHC (Lindane)	ND	11	ug/kg	0.86
Heptachlor	ND	11	ug/kg	1.1
Aldrin	ND	11	ug/kg	0.76
beta-BHC	ND	11	ug/kg	0.78
delta-BHC	ND	11	ug/kg	0.44
Heptachlor epoxide	ND	11	ug/kg	0.71
Endosulfan I	ND	11	ug/kg	1.1
gamma-Chlordane	1.9 J	11	ug/kg	1.0
alpha-Chlordane	9.8 J	11	ug/kg	1.4
4,4'-DDE	ND	23	ug/kg	1.7
Dieldrin	ND	23	ug/kg	1.5
Endrin	ND	23	ug/kg	2.0
4,4'-DDD	ND	23	ug/kg	1.7
Endosulfan II	ND	23	ug/kg	2.1
4,4'-DDT	ND	23	ug/kg	0.87
Endrin aldehyde	ND	23	ug/kg	1.1
Methoxychlor	ND	110	ug/kg	8.4
Endosulfan sulfate	ND	23	ug/kg	1.4
Endrin ketone	ND	23	ug/kg	1.6
Toxaphene	ND	450	ug/kg	140

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	0.0 SRD	(55 - 130)
Tetrachloro-m-xylene	0.0 SRD	(70 - 125)

NOTE(S) :

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: 780A-3-2,4-2,5-2 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-045      Work Order #....: H750T1AA      Matrix.....: SOLID  
 Date Sampled....: 06/22/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/14/06  
 Prep Batch #....: 6184405  
 Dilution Factor: 1  
 % Moisture.....: 23      Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
alpha-BHC	ND	2.2	ug/kg	0.15
gamma-BHC (Lindane)	ND	2.2	ug/kg	0.17
Heptachlor	ND	2.2	ug/kg	0.22
<b>Aldrin</b>	<b>3.2</b>	<b>2.2</b>	<b>ug/kg</b>	<b>0.15</b>
beta-BHC	ND	2.2	ug/kg	0.15
delta-BHC	ND	2.2	ug/kg	0.085
<b>Heptachlor epoxide</b>	<b>0.22 J</b>	<b>2.2</b>	<b>ug/kg</b>	<b>0.14</b>
Endosulfan I	ND	2.2	ug/kg	0.22
gamma-Chlordane	ND	2.2	ug/kg	0.20
alpha-Chlordane	ND	2.2	ug/kg	0.28
4,4'-DDE	ND	4.4	ug/kg	0.33
<b>Dieldrin</b>	<b>1.6 J</b>	<b>4.4</b>	<b>ug/kg</b>	<b>0.29</b>
Endrin	ND	4.4	ug/kg	0.38
4,4'-DDD	ND	4.4	ug/kg	0.34
Endosulfan II	ND	4.4	ug/kg	0.40
4,4'-DDT	ND	4.4	ug/kg	0.17
Endrin aldehyde	ND	4.4	ug/kg	0.22
Methoxychlor	ND	22	ug/kg	1.6
Endosulfan sulfate	ND	4.4	ug/kg	0.28
Endrin ketone	ND	4.4	ug/kg	0.31
Toxaphene	ND	87	ug/kg	28

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Decachlorobiphenyl	70	(55 - 130)
Tetrachloro-m-xylene	62 *	(70 - 125)

NOTE (S) :

- \* Surrogate recovery is outside stated control limits.
- Results and reporting limits have been adjusted for dry weight.
- J Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: 780A-3-2,4-2,5-2 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-045      Work Order #....: H750T2AA      Matrix.....: SOLID  
 Date Sampled....: 06/22/06      Date Received...: 06/23/06  
 Prep Date.....: 07/17/06      Analysis Date...: 07/20/06  
 Prep Batch #....: 6197482  
 Dilution Factor: 1  
 % Moisture.....: 23      Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
alpha-BHC	ND	2.2	ug/kg	0.15
gamma-BHC (Lindane)	ND	2.2	ug/kg	0.17
Heptachlor	ND	2.2	ug/kg	0.22
<b>Aldrin</b>	<b>0.25 J</b>	<b>2.2</b>	<b>ug/kg</b>	<b>0.15</b>
beta-BHC	ND	2.2	ug/kg	0.15
delta-BHC	ND	2.2	ug/kg	0.085
Heptachlor epoxide	ND	2.2	ug/kg	0.14
Endosulfan I	ND	2.2	ug/kg	0.22
gamma-Chlordane	ND	2.2	ug/kg	0.20
alpha-Chlordane	ND	2.2	ug/kg	0.28
4,4'-DDE	ND	4.4	ug/kg	0.33
Dieldrin	ND	4.4	ug/kg	0.29
Endrin	ND	4.4	ug/kg	0.38
4,4'-DDD	ND	4.4	ug/kg	0.34
Endosulfan II	ND	4.4	ug/kg	0.40
4,4'-DDT	ND	4.4	ug/kg	0.17
Endrin aldehyde	ND	4.4	ug/kg	0.22
Methoxychlor	ND	22	ug/kg	1.6
Endosulfan sulfate	ND	4.4	ug/kg	0.28
Endrin ketone	ND	4.4	ug/kg	0.31
Toxaphene	ND	87	ug/kg	28

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Decachlorobiphenyl	80	(55 - 130)
Tetrachloro-m-xylene	81	(70 - 125)

**NOTE (S) :**

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: 782A-7-1,8-1 COMPOSITE

GC Semivolatiles

Lot-Sample #...: G6F230422-049      Work Order #...: H75001AA      Matrix.....: SOLID  
 Date Sampled...: 06/21/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/18/06  
 Prep Batch #...: 6184405  
 Dilution Factor: 100  
 % Moisture.....: 24      Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
alpha-BHC	ND	220	ug/kg	15
gamma-BHC (Lindane)	ND	220	ug/kg	17
Heptachlor	ND	220	ug/kg	22
Aldrin	ND	220	ug/kg	15
beta-BHC	ND	220	ug/kg	15
delta-BHC	ND	220	ug/kg	8.6
Heptachlor epoxide	ND	220	ug/kg	14
Endosulfan I	ND	220	ug/kg	22
gamma-Chlordane	890	220	ug/kg	20
alpha-Chlordane	830	220	ug/kg	28
4,4'-DDE	ND	440	ug/kg	33
Dieldrin	ND	440	ug/kg	29
Endrin	ND	440	ug/kg	38
4,4'-DDD	ND	440	ug/kg	34
Endosulfan II	ND	440	ug/kg	40
4,4'-DDT	ND	440	ug/kg	17
Endrin aldehyde	ND	440	ug/kg	22
Methoxychlor	ND	2200	ug/kg	160
Endosulfan sulfate	ND	440	ug/kg	28
Endrin ketone	ND	440	ug/kg	31
Toxaphene	ND	8800	ug/kg	2800

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Decachlorobiphenyl	SRD	(55 - 130)
Tetrachloro-m-xylene	SRD	(70 - 125)

NOTE(S) :

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.  
 Results and reporting limits have been adjusted for dry weight.



Parsons Corporation

Client Sample ID: 782A-7-2,8-2 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-050      Work Order #....: H75011AA      Matrix.....: SOLID  
 Date Sampled....: 06/21/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/15/06  
 Prep Batch #....: 6184405  
 Dilution Factor: 20  
 % Moisture.....: 24      Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	45	ug/kg	3.1
gamma-BHC (Lindane)	ND	45	ug/kg	3.4
Heptachlor	ND	45	ug/kg	4.3
Aldrin	ND	45	ug/kg	3.0
beta-BHC	ND	45	ug/kg	3.1
delta-BHC	ND	45	ug/kg	1.7
Heptachlor epoxide	ND	45	ug/kg	2.8
Endosulfan I	ND	45	ug/kg	4.5
gamma-Chlordane	43 J	45	ug/kg	4.1
alpha-Chlordane	61	45	ug/kg	5.6
4,4'-DDE	ND	89	ug/kg	6.6
Dieldrin	ND	89	ug/kg	5.9
Endrin	ND	89	ug/kg	7.7
4,4'-DDD	ND	89	ug/kg	6.9
Endosulfan II	ND	89	ug/kg	8.1
4,4'-DDT	ND	89	ug/kg	3.4
Endrin aldehyde	ND	89	ug/kg	4.5
Methoxychlor	ND	450	ug/kg	33
Endosulfan sulfate	ND	89	ug/kg	5.7
Endrin ketone	ND	89	ug/kg	6.2
Toxaphene	ND	1800	ug/kg	560

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	0.0 SRD	(55 - 130)
Tetrachloro-m-xylene	0.0 SRD	(70 - 125)

NOTE (S) :

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: 782A-1-1,2-1 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-051      Work Order #....: H75021AA      Matrix.....: SOLID  
 Date Sampled...: 06/21/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/15/06  
 Prep Batch #....: 6184405  
 Dilution Factor: 2  
 % Moisture.....: 30      Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
alpha-BHC	ND	4.8	ug/kg	0.33
gamma-BHC (Lindane)	ND	4.8	ug/kg	0.37
Heptachlor	ND	4.8	ug/kg	0.47
Aldrin	ND	4.8	ug/kg	0.33
beta-BHC	ND	4.8	ug/kg	0.34
delta-BHC	ND	4.8	ug/kg	0.19
Heptachlor epoxide	ND	4.8	ug/kg	0.30
Endosulfan I	ND	4.8	ug/kg	0.49
gamma-Chlordane	ND	4.8	ug/kg	0.44
alpha-Chlordane	ND	4.8	ug/kg	0.61
4,4'-DDE	ND	9.7	ug/kg	0.72
Dieldrin	ND	9.7	ug/kg	0.64
Endrin	ND	9.7	ug/kg	0.83
4,4'-DDD	ND	9.7	ug/kg	0.75
Endosulfan II	ND	9.7	ug/kg	0.88
4,4'-DDT	0.62 J	9.7	ug/kg	0.37
Endrin aldehyde	ND	9.7	ug/kg	0.49
Methoxychlor	ND	48	ug/kg	3.6
Endosulfan sulfate	ND	9.7	ug/kg	0.62
Endrin ketone	ND	9.7	ug/kg	0.67
Toxaphene	ND	190	ug/kg	61

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Decachlorobiphenyl	84	(55 - 130)
Tetrachloro-m-xylene	81	(70 - 125)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: 782A-2-2,1-2 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-052      Work Order #....: H75031AA      Matrix.....: SOLID  
 Date Sampled....: 06/21/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/15/06  
 Prep Batch #....: 6184405  
 Dilution Factor: 1  
 % Moisture.....: 28      Method.....: SW846 8031A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	2.4	ug/kg	0.16
gamma-BHC (Lindane)	ND	2.4	ug/kg	0.18
Heptachlor	ND	2.4	ug/kg	0.23
Aldrin	ND	2.4	ug/kg	0.16
beta-BHC	ND	2.4	ug/kg	0.16
delta-BHC	ND	2.4	ug/kg	0.092
Heptachlor epoxide	ND	2.4	ug/kg	0.15
Endosulfan I	ND	2.4	ug/kg	0.24
gamma-Chlordane	ND	2.4	ug/kg	0.22
alpha-Chlordane	ND	2.4	ug/kg	0.30
4,4'-DDE	ND	4.8	ug/kg	0.35
Dieldrin	ND	4.8	ug/kg	0.31
Endrin	ND	4.8	ug/kg	0.41
4,4'-DDD	ND	4.8	ug/kg	0.37
Endosulfan II	ND	4.8	ug/kg	0.43
4,4'-DDT	0.48 J	4.8	ug/kg	0.18
Endrin aldehyde	ND	4.8	ug/kg	0.24
Methoxychlor	ND	24	ug/kg	1.8
Endosulfan sulfate	ND	4.8	ug/kg	0.30
Endrin ketone	ND	4.8	ug/kg	0.33
Toxaphene	ND	94	ug/kg	30

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	77	(55 - 130)
Tetrachloro-m-xylene	62 *	(70 - 125)

NOTE(S) :

\* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: 782A-2-2,1-2 COMPOSITE

GC Semivolatiles

Lot-Sample #....: G6F230422-052      Work Order #....: H75032AA      Matrix.....: SOLID  
 Date Sampled....: 06/21/06      Date Received...: 06/23/06  
 Prep Date.....: 07/20/06      Analysis Date...: 07/21/06  
 Prep Batch #....: 6201303  
 Dilution Factor: 1  
 % Moisture.....: 28      Method.....: SW846 8031A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	2.4	ug/kg	0.16
gamma-BHC (Lindane)	ND	2.4	ug/kg	0.18
Heptachlor	ND	2.4	ug/kg	0.23
Aldrin	2.9 B	2.4	ug/kg	0.16
beta-BHC	ND	2.4	ug/kg	0.16
delta-BHC	ND	2.4	ug/kg	0.092
Heptachlor epoxide	ND	2.4	ug/kg	0.15
Endosulfan I	ND	2.4	ug/kg	0.24
gamma-Chlordane	ND	2.4	ug/kg	0.22
alpha-Chlordane	ND	2.4	ug/kg	0.30
4,4'-DDE	ND	4.8	ug/kg	0.35
Dieldrin	0.91 J,B	4.8	ug/kg	0.31
Endrin	ND	4.8	ug/kg	0.41
4,4'-DDD	ND	4.8	ug/kg	0.37
Endosulfan II	ND	4.8	ug/kg	0.43
4,4'-DDT	ND	4.8	ug/kg	0.18
Endrin aldehyde	ND	4.8	ug/kg	0.24
Methoxychlor	ND	24	ug/kg	1.8
Endosulfan sulfate	ND	4.8	ug/kg	0.30
Endrin ketone	ND	4.8	ug/kg	0.33
Toxaphene	ND	94	ug/kg	30

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	80	(55 - 130)
Tetrachloro-m-xylene	82	(70 - 125)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than RL.

# QC DATA ASSOCIATION SUMMARY

G6F230422

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
038	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
039	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
040	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
041	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
042	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
043	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 8081A		6201303	
	SOLID	SW846 6010B		6187097	6187041
044	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
045	SOLID	ASTM D 2216-90		6181521	6181291
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 8081A		6197482	
	SOLID	SW846 6010B		6187097	6187041
046	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
047	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041

(Continued on next page)

# QC DATA ASSOCIATION SUMMARY

G6F230422

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
048	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
049	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
050	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
051	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041
052	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 8081A		6201303	
	SOLID	SW846 6010B		6187097	6187041
053	SOLID	ASTM D 2216-90		6180272	6180171
	SOLID	SW846 8081A		6184405	6186212
	SOLID	SW846 6010B		6187097	6187041

# METHOD BLANK REPORT

## GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H8NC01AA      Matrix.....: SOLID  
 MB Lot-Sample #: G6G030000-405  
 Prep Date.....: 07/05/06  
 Analysis Date...: 07/13/06      Prep Batch #...: 6184405  
 Dilution Factor: 1

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
alpha-BHC	ND	1.7	ug/kg	SW846 8081A
gamma-BHC (Lindane)	ND	1.7	ug/kg	SW846 8081A
Heptachlor	ND	1.7	ug/kg	SW846 8081A
Aldrin	ND	1.7	ug/kg	SW846 8081A
beta-BHC	ND	1.7	ug/kg	SW846 8081A
delta-BHC	ND	1.7	ug/kg	SW846 8081A
Heptachlor epoxide	ND	1.7	ug/kg	SW846 8081A
Endosulfan I	ND	1.7	ug/kg	SW846 8081A
gamma-Chlordane	ND	1.7	ug/kg	SW846 8081A
alpha-Chlordane	ND	1.7	ug/kg	SW846 8081A
4,4'-DDE	ND	3.4	ug/kg	SW846 8081A
Dieldrin	ND	3.4	ug/kg	SW846 8081A
Endrin	ND	3.4	ug/kg	SW846 8081A
4,4'-DDD	ND	3.4	ug/kg	SW846 8081A
Endosulfan II	ND	3.4	ug/kg	SW846 8081A
4,4'-DDT	ND	3.4	ug/kg	SW846 8081A
Endrin aldehyde	ND	3.4	ug/kg	SW846 8081A
Methoxychlor	ND	17	ug/kg	SW846 8081A
Endosulfan sulfate	ND	3.4	ug/kg	SW846 8081A
Endrin ketone	ND	3.4	ug/kg	SW846 8081A
Toxaphene	ND	67	ug/kg	SW846 8081A
		PERCENT	RECOVERY	
SURROGATE		RECOVERY	LIMITS	
Decachlorobiphenyl		86	(55 - 130)	
Tetrachloro-m-xylene		82	(70 - 125)	

### NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

# METHOD BLANK REPORT

## GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H9EVP1AA      Matrix.....: SOLID  
 MB Lot-Sample #: G6G160000-482  
 Prep Date.....: 07/17/06  
 Analysis Date...: 07/20/06      Prep Batch #...: 6197482  
 Dilution Factor: 1

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	METHOD
alpha-BHC	ND	1.7	ug/kg	SW846 8081A
gamma-BHC (Lindane)	ND	1.7	ug/kg	SW846 8081A
Heptachlor	ND	1.7	ug/kg	SW846 8081A
Aldrin	ND	1.7	ug/kg	SW846 8081A
beta-BHC	ND	1.7	ug/kg	SW846 8081A
delta-BHC	ND	1.7	ug/kg	SW846 8081A
Heptachlor epoxide	ND	1.7	ug/kg	SW846 8081A
Endosulfan I	ND	1.7	ug/kg	SW846 8081A
gamma-Chlordane	ND	1.7	ug/kg	SW846 8081A
alpha-Chlordane	ND	1.7	ug/kg	SW846 8081A
4,4'-DDE	ND	3.4	ug/kg	SW846 8081A
Dieldrin	ND	3.4	ug/kg	SW846 8081A
Endrin	ND	3.4	ug/kg	SW846 8081A
4,4'-DDD	ND	3.4	ug/kg	SW846 8081A
Endosulfan II	ND	3.4	ug/kg	SW846 8081A
4,4'-DDT	ND	3.4	ug/kg	SW846 8081A
Endrin aldehyde	ND	3.4	ug/kg	SW846 8081A
Methoxychlor	ND	17	ug/kg	SW846 8081A
Endosulfan sulfate	ND	3.4	ug/kg	SW846 8081A
Endrin ketone	ND	3.4	ug/kg	SW846 8081A
Toxaphene	ND	67	ug/kg	SW846 8081A
		PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS		
Decachlorobiphenyl	86	(55 - 130)		
Tetrachloro-m-xylene	92	(70 - 125)		

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.



# METHOD BLANK REPORT

## GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H9MH51AA      Matrix.....: SOLID  
 MB Lot-Sample #: G6G200000-303  
 Prep Date.....: 07/20/06  
 Analysis Date...: 07/21/06      Prep Batch #...: 6201303  
 Dilution Factor: 1

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
alpha-BHC	ND	1.7	ug/kg	SW846 8081A
gamma-BHC (Lindane)	ND	1.7	ug/kg	SW846 8081A
Heptachlor	ND	1.7	ug/kg	SW846 8081A
<b>Aldrin</b>	<b>0.50 J</b>	<b>1.7</b>	<b>ug/kg</b>	<b>SW846 8081A</b>
beta-BHC	ND	1.7	ug/kg	SW846 8081A
delta-BHC	ND	1.7	ug/kg	SW846 8081A
Heptachlor epoxide	ND	1.7	ug/kg	SW846 8081A
Endosulfan I	ND	1.7	ug/kg	SW846 8081A
gamma-Chlordane	ND	1.7	ug/kg	SW846 8081A
alpha-Chlordane	ND	1.7	ug/kg	SW846 8081A
4,4'-DDE	ND	3.4	ug/kg	SW846 8081A
<b>Dieldrin</b>	<b>0.59 J</b>	<b>3.4</b>	<b>ug/kg</b>	<b>SW846 8081A</b>
Endrin	ND	3.4	ug/kg	SW846 8081A
4,4'-DDD	ND	3.4	ug/kg	SW846 8081A
Endosulfan II	ND	3.4	ug/kg	SW846 8081A
<b>4,4'-DDT</b>	<b>0.66 J</b>	<b>3.4</b>	<b>ug/kg</b>	<b>SW846 8081A</b>
Endrin aldehyde	ND	3.4	ug/kg	SW846 8081A
Methoxychlor	ND	17	ug/kg	SW846 8081A
Endosulfan sulfate	ND	3.4	ug/kg	SW846 8081A
Endrin ketone	ND	3.4	ug/kg	SW846 8081A
Toxaphene	ND	67	ug/kg	SW846 8081A
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Decachlorobiphenyl	115		(55 - 130)	
Tetrachloro-m-xylene	113		(70 - 125)	

### NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

# LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H8NC01AC      Matrix.....: SOLID  
 LCS Lot-Sample#: G6G030000-405  
 Prep Date.....: 07/05/06      Analysis Date...: 07/13/06  
 Prep Batch #...: 6184405  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
alpha-BHC	8.33	7.72	ug/kg	93	SW846 8081A
gamma-BHC (Lindane)	8.33	8.01	ug/kg	96	SW846 8081A
Heptachlor	8.33	9.01	ug/kg	108	SW846 8081A
Aldrin	8.33	7.75	ug/kg	93	SW846 8081A
beta-BHC	8.33	9.70	ug/kg	116	SW846 8081A
delta-BHC	8.33	8.46	ug/kg	102	SW846 8081A
Heptachlor epoxide	8.33	7.98	ug/kg	96	SW846 8081A
Endosulfan I	8.33	7.96	ug/kg	96	SW846 8081A
gamma-Chlordane	8.33	8.22	ug/kg	99	SW846 8081A
alpha-Chlordane	8.33	8.16	ug/kg	98	SW846 8081A
4,4'-DDE	16.7	16.8	ug/kg	101	SW846 8081A
Dieldrin	16.7	16.3	ug/kg	98	SW846 8081A
Endrin	16.7	19.0	ug/kg	114	SW846 8081A
4,4'-DDD	16.7	17.9	ug/kg	107	SW846 8081A
Endosulfan II	16.7	16.8	ug/kg	101	SW846 8081A
4,4'-DDT	16.7	18.3	ug/kg	110	SW846 8081A
Endrin aldehyde	16.7	12.6	ug/kg	76	SW846 8081A
Methoxychlor	83.3	96.8	ug/kg	116	SW846 8081A
Endosulfan sulfate	16.7	18.1	ug/kg	108	SW846 8081A
Endrin ketone	16.7	20.1	ug/kg	121	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	88	(55 - 130)
Tetrachloro-m-xylene	84	(70 - 125)

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H8NC01AC      Matrix.....: SOLID  
 LCS Lot-Sample#: G6G030000-405  
 Prep Date.....: 07/05/06      Analysis Date...: 07/13/06  
 Prep Batch #...: 6184405  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
alpha-BHC	93	(60 - 125)	SW846 8081A
gamma-BHC (Lindane)	96	(60 - 125)	SW846 8081A
Heptachlor	108	(50 - 140)	SW846 8081A
Aldrin	93	(45 - 140)	SW846 8081A
beta-BHC	116	(60 - 125)	SW846 8081A
delta-BHC	102	(55 - 130)	SW846 8081A
Heptachlor epoxide	96	(65 - 130)	SW846 8081A
Endosulfan I	96	(15 - 135)	SW846 8081A
gamma-Chlordane	99	(65 - 125)	SW846 8081A
alpha-Chlordane	98	(65 - 120)	SW846 8081A
4,4'-DDE	101	(70 - 125)	SW846 8081A
Dieldrin	98	(65 - 125)	SW846 8081A
Endrin	114	(60 - 135)	SW846 8081A
4,4'-DDD	107	(30 - 135)	SW846 8081A
Endosulfan II	101	(35 - 140)	SW846 8081A
4,4'-DDT	110	(45 - 140)	SW846 8081A
Endrin aldehyde	76	(35 - 145)	SW846 8081A
Methoxychlor	116	(55 - 145)	SW846 8081A
Endosulfan sulfate	108	(60 - 135)	SW846 8081A
Endrin ketone	121	(60 - 135)	SW846 8081A

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Decachlorobiphenyl	88	(55 - 130)
Tetrachloro-m-xylene	84	(70 - 125)

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #....: G6F230422      Work Order #....: H9EVP1AC-LCS      Matrix.....: SOLID  
 LCS Lot-Sample#: G6G160000-482      H9EVP1AD-LCSD  
 Prep Date.....: 07/17/06      Analysis Date...: 07/20/06  
 Prep Batch #....: 6197482  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
alpha-BHC	8.33	8.37	ug/kg	101		SW846 8081A
	8.33	8.21	ug/kg	99	2.0	SW846 8081A
gamma-BHC (Lindane)	8.33	8.65	ug/kg	104		SW846 8081A
	8.33	8.50	ug/kg	102	1.7	SW846 8081A
Heptachlor	8.33	9.84	ug/kg	118		SW846 8081A
	8.33	9.48	ug/kg	114	3.8	SW846 8081A
Aldrin	8.33	8.20	ug/kg	98		SW846 8081A
	8.33	8.07	ug/kg	97	1.6	SW846 8081A
beta-BHC	8.33	9.89	ug/kg	119		SW846 8081A
	8.33	10.0	ug/kg	120	1.3	SW846 8081A
delta-BHC	8.33	9.56	ug/kg	115		SW846 8081A
	8.33	9.35	ug/kg	112	2.2	SW846 8081A
Heptachlor epoxide	8.33	8.42	ug/kg	101		SW846 8081A
	8.33	8.30	ug/kg	100	1.4	SW846 8081A
Endosulfan I	8.33	8.60	ug/kg	103		SW846 8081A
	8.33	8.55	ug/kg	103	0.58	SW846 8081A
gamma-Chlordane	8.33	8.30	ug/kg	100		SW846 8081A
	8.33	8.22	ug/kg	99	1.0	SW846 8081A
alpha-Chlordane	8.33	8.61	ug/kg	103		SW846 8081A
	8.33	8.51	ug/kg	102	1.1	SW846 8081A
4,4'-DDE	16.7	17.2	ug/kg	103		SW846 8081A
	16.7	16.9	ug/kg	101	1.9	SW846 8081A
Dieldrin	16.7	17.1	ug/kg	102		SW846 8081A
	16.7	16.9	ug/kg	101	1.5	SW846 8081A
Endrin	16.7	19.6	ug/kg	117		SW846 8081A
	16.7	19.1	ug/kg	114	2.5	SW846 8081A
4,4'-DDD	16.7	18.7	ug/kg	112		SW846 8081A
	16.7	18.4	ug/kg	110	1.6	SW846 8081A
Endosulfan II	16.7	17.8	ug/kg	107		SW846 8081A
	16.7	17.3	ug/kg	104	2.8	SW846 8081A
4,4'-DDT	16.7	19.4	ug/kg	116		SW846 8081A
	16.7	19.0	ug/kg	114	2.0	SW846 8081A
Endrin aldehyde	16.7	13.6	ug/kg	81		SW846 8081A
	16.7	12.8	ug/kg	77	5.4	SW846 8081A
Methoxychlor	83.3	106	ug/kg	127		SW846 8081A
	83.3	103	ug/kg	124	2.5	SW846 8081A
Endosulfan sulfate	16.7	19.5	ug/kg	117		SW846 8081A
	16.7	19.3	ug/kg	116	1.3	SW846 8081A
Endrin ketone	16.7	18.1	ug/kg	108		SW846 8081A
	16.7	18.2	ug/kg	109	0.36	SW846 8081A

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H9EVP1AC-LCS      Matrix.....: SOLID  
LCS Lot-Sample#: G6G160000-482      H9EVP1AD-LCSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Decachlorobiphenyl	90	(55 - 130)
	92	(55 - 130)
Tetrachloro-m-xylene	99	(70 - 125)
	97	(70 - 125)

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H9EVP1AC-LCS      Matrix.....: SOLID  
 LCS Lot-Sample#: G6G160000-482      H9EVP1AD-LCSD  
 Prep Date.....: 07/17/06      Analysis Date...: 07/20/06  
 Prep Batch #...: 6197482  
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
alpha-BHC	101	(60 - 125)			SW846 8081A
	99	(60 - 125)	2.0	(0-30)	SW846 8081A
gamma-BHC (Lindane)	104	(60 - 125)			SW846 8081A
	102	(60 - 125)	1.7	(0-30)	SW846 8081A
Heptachlor	118	(50 - 140)			SW846 8081A
	114	(50 - 140)	3.8	(0-30)	SW846 8081A
Aldrin	98	(45 - 140)			SW846 8081A
	97	(45 - 140)	1.6	(0-30)	SW846 8081A
beta-BHC	119	(60 - 125)			SW846 8081A
	120	(60 - 125)	1.3	(0-30)	SW846 8081A
delta-BHC	115	(55 - 130)			SW846 8081A
	112	(55 - 130)	2.2	(0-30)	SW846 8081A
Heptachlor epoxide	101	(65 - 130)			SW846 8081A
	100	(65 - 130)	1.4	(0-30)	SW846 8081A
Endosulfan I	103	(15 - 135)			SW846 8081A
	103	(15 - 135)	0.58	(0-30)	SW846 8081A
gamma-Chlordane	100	(65 - 125)			SW846 8081A
	99	(65 - 125)	1.0	(0-30)	SW846 8081A
alpha-Chlordane	103	(65 - 120)			SW846 8081A
	102	(65 - 120)	1.1	(0-30)	SW846 8081A
4,4'-DDE	103	(70 - 125)			SW846 8081A
	101	(70 - 125)	1.9	(0-30)	SW846 8081A
Dieldrin	102	(65 - 125)			SW846 8081A
	101	(65 - 125)	1.5	(0-30)	SW846 8081A
Endrin	117	(60 - 135)			SW846 8081A
	114	(60 - 135)	2.5	(0-30)	SW846 8081A
4,4'-DDD	112	(30 - 135)			SW846 8081A
	110	(30 - 135)	1.6	(0-30)	SW846 8081A
Endosulfan II	107	(35 - 140)			SW846 8081A
	104	(35 - 140)	2.8	(0-30)	SW846 8081A
4,4'-DDT	116	(45 - 140)			SW846 8081A
	114	(45 - 140)	2.0	(0-30)	SW846 8081A
Endrin aldehyde	81	(35 - 145)			SW846 8081A
	77	(35 - 145)	5.4	(0-30)	SW846 8081A
Methoxychlor	127	(55 - 145)			SW846 8081A
	124	(55 - 145)	2.5	(0-30)	SW846 8081A
Endosulfan sulfate	117	(60 - 135)			SW846 8081A
	116	(60 - 135)	1.3	(0-30)	SW846 8081A
Endrin ketone	108	(60 - 135)			SW846 8081A
	109	(60 - 135)	0.36	(0-30)	SW846 8081A

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H9EVP1AC-LCS      Matrix.....: SOLID  
LCS Lot-Sample#: G6G160000-482      H9EVP1AD-LCSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Decachlorobiphenyl	90	(55 - 130)
	92	(55 - 130)
Tetrachloro-m-xylene	99	(70 - 125)
	97	(70 - 125)

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H9MH51AC-LCS      Matrix.....: SOLID  
 LCS Lot-Sample#: G6G200000-303      H9MH51AD-LCSD  
 Prep Date.....: 07/20/06      Analysis Date...: 07/21/06  
 Prep Batch #...: 6201303  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
alpha-BHC	8.33	7.69	ug/kg	92		SW846 8081A
	8.33	8.23	ug/kg	99	6.8	SW846 8081A
gamma-BHC (Lindane)	8.33	7.98	ug/kg	96		SW846 8081A
	8.33	8.46	ug/kg	102	5.9	SW846 8081A
Heptachlor	8.33	8.37	ug/kg	100		SW846 8081A
	8.33	8.75	ug/kg	105	4.4	SW846 8081A
Aldrin	8.33	7.63	ug/kg	92		SW846 8081A
	8.33	8.10	ug/kg	97	6.0	SW846 8081A
beta-BHC	8.33	8.66	ug/kg	104		SW846 8081A
	8.33	9.19	ug/kg	110	5.9	SW846 8081A
delta-BHC	8.33	8.48	ug/kg	102		SW846 8081A
	8.33	8.99	ug/kg	108	5.8	SW846 8081A
Heptachlor epoxide	8.33	7.78	ug/kg	93		SW846 8081A
	8.33	8.18	ug/kg	98	5.0	SW846 8081A
Endosulfan I	8.33	7.83	ug/kg	94		SW846 8081A
	8.33	8.21	ug/kg	99	4.7	SW846 8081A
gamma-Chlordane	8.33	7.83	ug/kg	94		SW846 8081A
	8.33	8.25	ug/kg	99	5.2	SW846 8081A
alpha-Chlordane	8.33	8.01	ug/kg	96		SW846 8081A
	8.33	8.42	ug/kg	101	5.0	SW846 8081A
4,4'-DDE	16.7	16.4	ug/kg	98		SW846 8081A
	16.7	17.3	ug/kg	104	5.3	SW846 8081A
Dieldrin	16.7	16.0	ug/kg	96		SW846 8081A
	16.7	16.8	ug/kg	101	4.8	SW846 8081A
Endrin	16.7	16.9	ug/kg	101		SW846 8081A
	16.7	17.8	ug/kg	107	5.4	SW846 8081A
4,4'-DDD	16.7	17.1	ug/kg	102		SW846 8081A
	16.7	17.9	ug/kg	107	4.8	SW846 8081A
Endosulfan II	16.7	17.4	ug/kg	104		SW846 8081A
	16.7	18.3	ug/kg	109	4.8	SW846 8081A
4,4'-DDT	16.7	17.7	ug/kg	106		SW846 8081A
	16.7	18.7	ug/kg	112	5.5	SW846 8081A
Endrin aldehyde	16.7	10.5	ug/kg	63		SW846 8081A
	16.7	10.5	ug/kg	63	0.42	SW846 8081A
Methoxychlor	83.3	81.9	ug/kg	98		SW846 8081A
	83.3	86.7	ug/kg	104	5.8	SW846 8081A
Endosulfan sulfate	16.7	16.9	ug/kg	101		SW846 8081A
	16.7	17.8	ug/kg	106	4.8	SW846 8081A
Endrin ketone	16.7	16.8	ug/kg	101		SW846 8081A
	16.7	17.6	ug/kg	105	4.2	SW846 8081A

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LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H9MH51AC-LCS      Matrix.....: SOLID  
LCS Lot-Sample#: G6G200000-303      H9MH51AD-LCSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Decachlorobiphenyl	100	(55 - 130)
	103	(55 - 130)
Tetrachloro-m-xylene	88	(70 - 125)
	91	(70 - 125)

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H9MH51AC-LCS      Matrix.....: SOLID  
 LCS Lot-Sample#: G6G2000000-303      H9MH51AD-LCSD  
 Prep Date.....: 07/20/06      Analysis Date...: 07/21/06  
 Prep Batch #...: 6201303  
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
alpha-BHC	92	(60 - 125)			SW846 8081A
	99	(60 - 125)	6.8	(0-30)	SW846 8081A
gamma-BHC (Lindane)	96	(60 - 125)			SW846 8081A
	102	(60 - 125)	5.9	(0-30)	SW846 8081A
Heptachlor	100	(50 - 140)			SW846 8081A
	105	(50 - 140)	4.4	(0-30)	SW846 8081A
Aldrin	92	(45 - 140)			SW846 8081A
	97	(45 - 140)	6.0	(0-30)	SW846 8081A
beta-BHC	104	(60 - 125)			SW846 8081A
	110	(60 - 125)	5.9	(0-30)	SW846 8081A
delta-BHC	102	(55 - 130)			SW846 8081A
	108	(55 - 130)	5.8	(0-30)	SW846 8081A
Heptachlor epoxide	93	(65 - 130)			SW846 8081A
	98	(65 - 130)	5.0	(0-30)	SW846 8081A
Endosulfan I	94	(15 - 135)			SW846 8081A
	99	(15 - 135)	4.7	(0-30)	SW846 8081A
gamma-Chlordane	94	(65 - 125)			SW846 8081A
	99	(65 - 125)	5.2	(0-30)	SW846 8081A
alpha-Chlordane	96	(65 - 120)			SW846 8081A
	101	(65 - 120)	5.0	(0-30)	SW846 8081A
4,4'-DDE	98	(70 - 125)			SW846 8081A
	104	(70 - 125)	5.3	(0-30)	SW846 8081A
Dieldrin	96	(65 - 125)			SW846 8081A
	101	(65 - 125)	4.8	(0-30)	SW846 8081A
Endrin	101	(60 - 135)			SW846 8081A
	107	(60 - 135)	5.4	(0-30)	SW846 8081A
4,4'-DDD	102	(30 - 135)			SW846 8081A
	107	(30 - 135)	4.8	(0-30)	SW846 8081A
Endosulfan II	104	(35 - 140)			SW846 8081A
	109	(35 - 140)	4.8	(0-30)	SW846 8081A
4,4'-DDT	106	(45 - 140)			SW846 8081A
	112	(45 - 140)	5.5	(0-30)	SW846 8081A
Endrin aldehyde	63	(35 - 145)			SW846 8081A
	63	(35 - 145)	0.42	(0-30)	SW846 8081A
Methoxychlor	98	(55 - 145)			SW846 8081A
	104	(55 - 145)	5.8	(0-30)	SW846 8081A
Endosulfan sulfate	101	(60 - 135)			SW846 8081A
	106	(60 - 135)	4.8	(0-30)	SW846 8081A
Endrin ketone	101	(60 - 135)			SW846 8081A
	105	(60 - 135)	4.2	(0-30)	SW846 8081A

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H9MH51AC-LCS      Matrix.....: SOLID  
LCS Lot-Sample#: G6G200000-303      H9MH51AD-LCSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Decachlorobiphenyl	100	(55 - 130)
	103	(55 - 130)
Tetrachloro-m-xylene	88	(70 - 125)
	91	(70 - 125)

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# MATRIX SPIKE SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H750R1AE-MS      Matrix.....: SOLID  
 MS Lot-Sample #: G6F230422-044      H750R1AF-MSD  
 Date Sampled...: 06/22/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/14/06  
 Prep Batch #...: 6184405  
 Dilution Factor: 5      % Moisture.....: 25

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
alpha-BHC	ND	11.1		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	11.1		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
gamma-BHC (Lindane)	ND	11.1		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	11.1		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
Heptachlor	ND	11.1		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	11.1		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
Aldrin	ND	11.1		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	11.1		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
beta-BHC	ND	11.1		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	11.1		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
delta-BHC	ND	11.1		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	11.1		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
Heptachlor epoxide	ND	11.1		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	11.1		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
Endosulfan I	ND	11.1		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	11.1		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
gamma-Chlordane	1.9	11.1		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	1.9	11.1		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
alpha-Chlordane	9.8	11.1		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	9.8	11.1		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					

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# MATRIX SPIKE SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H750R1AE-MS      Matrix.....: SOLID  
MS Lot-Sample #: G6F230422-044      H750R1AF-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
4,4'-DDE	ND	22.3		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	22.3		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
Dieldrin	ND	22.3		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	22.3		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
Endrin	ND	22.3		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	22.3		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
4,4'-DDD	ND	22.3		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	22.3		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
Endosulfan II	ND	22.3		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	22.3		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
4,4'-DDT	ND	22.3		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	22.3		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
Endrin aldehyde	ND	22.3		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	22.3		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
Methoxychlor	ND	111		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	111		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
Endosulfan sulfate	ND	22.3		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	22.3		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					
Endrin ketone	ND	22.3		ug/kg	0.0		SW846 8081A
		Qualifiers: MSA					
	ND	22.3		ug/kg	0.0	0.0	SW846 8081A
		Qualifiers: MSA					

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# MATRIX SPIKE SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H750R1AE-MS      Matrix.....: SOLID  
MS Lot-Sample #: G6F230422-044      H750R1AF-MSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Decachlorobiphenyl	0.0 SRD	(55 - 130)
	0.0 SRD	(55 - 130)
Tetrachloro-m-xylene	0.0 SRD	(70 - 125)
	0.0 SRD	(70 - 125)

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

MSA The recovery and RPD were not calculated because the sample was diluted beyond the ability to quantitate a recovery.

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

# MATRIX SPIKE SAMPLE EVALUATION REPORT

## GC Semivolatiles

Client Lot #....: G6F230422      Work Order #....: H750R1AE-MS      Matrix.....: SOLID  
 MS Lot-Sample #: G6F230422-044      H750R1AF-MSD  
 Date Sampled...: 06/22/06      Date Received...: 06/23/06  
 Prep Date.....: 07/05/06      Analysis Date...: 07/14/06  
 Prep Batch #....: 6184405  
 Dilution Factor: 5      % Moisture.....: 25

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
alpha-BHC	0.0 MSA	(60 - 125)			SW846 8081A
	0.0 MSA	(60 - 125)	0.0	(0-30)	SW846 8081A
gamma-BHC (Lindane)	0.0 MSA	(60 - 125)			SW846 8081A
	0.0 MSA	(60 - 125)	0.0	(0-30)	SW846 8081A
Heptachlor	0.0 MSA	(50 - 140)			SW846 8081A
	0.0 MSA	(50 - 140)	0.0	(0-30)	SW846 8081A
Aldrin	0.0 MSA	(45 - 140)			SW846 8081A
	0.0 MSA	(45 - 140)	0.0	(0-30)	SW846 8081A
beta-BHC	0.0 MSA	(60 - 125)			SW846 8081A
	0.0 MSA	(60 - 125)	0.0	(0-30)	SW846 8081A
delta-BHC	0.0 MSA	(55 - 130)			SW846 8081A
	0.0 MSA	(55 - 130)	0.0	(0-30)	SW846 8081A
Heptachlor epoxide	0.0 MSA	(65 - 130)			SW846 8081A
	0.0 MSA	(65 - 130)	0.0	(0-30)	SW846 8081A
Endosulfan I	0.0 MSA	(15 - 135)			SW846 8081A
	0.0 MSA	(15 - 135)	0.0	(0-30)	SW846 8081A
gamma-Chlordane	0.0 MSA	(65 - 125)			SW846 8081A
	0.0 MSA	(65 - 125)	0.0	(0-30)	SW846 8081A
alpha-Chlordane	0.0 MSA	(65 - 120)			SW846 8081A
	0.0 MSA	(65 - 120)	0.0	(0-30)	SW846 8081A
4,4'-DDE	0.0 MSA	(70 - 125)			SW846 8081A
	0.0 MSA	(70 - 125)	0.0	(0-30)	SW846 8081A
Dieldrin	0.0 MSA	(65 - 125)			SW846 8081A
	0.0 MSA	(65 - 125)	0.0	(0-30)	SW846 8081A
Endrin	0.0 MSA	(60 - 135)			SW846 8081A
	0.0 MSA	(60 - 135)	0.0	(0-30)	SW846 8081A
4,4'-DDD	0.0 MSA	(30 - 135)			SW846 8081A
	0.0 MSA	(30 - 135)	0.0	(0-30)	SW846 8081A
Endosulfan II	0.0 MSA	(35 - 140)			SW846 8081A
	0.0 MSA	(35 - 140)	0.0	(0-30)	SW846 8081A
4,4'-DDT	0.0 MSA	(45 - 140)			SW846 8081A
	0.0 MSA	(45 - 140)	0.0	(0-30)	SW846 8081A
Endrin aldehyde	0.0 MSA	(35 - 145)			SW846 8081A
	0.0 MSA	(35 - 145)	0.0	(0-30)	SW846 8081A
Methoxychlor	0.0 MSA	(55 - 145)			SW846 8081A
	0.0 MSA	(55 - 145)	0.0	(0-30)	SW846 8081A
Endosulfan sulfate	0.0 MSA	(60 - 135)			SW846 8081A
	0.0 MSA	(60 - 135)	0.0	(0-30)	SW846 8081A
Endrin ketone	0.0 MSA	(60 - 135)			SW846 8081A
	0.0 MSA	(60 - 135)	0.0	(0-30)	SW846 8081A

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# MATRIX SPIKE SAMPLE EVALUATION REPORT

## GC Semivolatiles

Client Lot #...: G6F230422      Work Order #...: H750R1AE-MS      Matrix.....: SOLID  
MS Lot-Sample #: G6F230422-044      H750R1AF-MSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Decachlorobiphenyl	0.0 SRD	(55 - 130)
	0.0 SRD	(55 - 130)
Tetrachloro-m-xylene	0.0 SRD	(70 - 125)
	0.0 SRD	(70 - 125)

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

MSA The recovery and RPD were not calculated because the sample was diluted beyond the ability to quantitate a recovery.

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.



SOLID, 6010B,  
Pb only

Parsons Corporation

Client Sample ID: 782A-3-1,4-1,5-1 COMPOSITE

TOTAL Metals

Lot-Sample #...: G6F230422-038

Date Sampled...: 06/22/06

Date Received...: 06/23/06

Matrix.....: SOLID

% Moisture.....: 28

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...:	6187097					
Lead	28.7	2.1	mg/kg	SW846 6010B	07/06-07/07/06	H75X11AD
		Dilution Factor: 1		MDL.....: 0.70		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 782A-3-2,4-2,5-2 COMPOSITE

TOTAL Metals

Lot-Sample #...: G6F230422-039

Matrix.....: SOLID

Date Sampled...: 06/22/06

Date Received...: 06/23/06

% Moisture.....: 27

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...	6187097					
Lead	11.2	2.1	mg/kg	SW846 6010B	07/06/06	H750K1AD
		Dilution Factor: 1		MDL.....: 0.68		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 780A-7-1,8-1 COMPOSITE

TOTAL Metals

Lot-Sample #....: G6F230422-040

Matrix.....: SOLID

Date Sampled...: 06/22/06

Date Received...: 06/23/06

% Moisture.....: 26

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 6187097						
Lead	13.9	2.0	mg/kg	SW846 6010B	07/06/06	H750L1AD
		Dilution Factor: 1		MDL.....: 0.68		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 780A-7-2,8-2 COMPOSITE

TOTAL Metals

Lot-Sample #...: G6F230422-041

Matrix.....: SOLID

Date Sampled...: 06/22/06

Date Received...: 06/23/06

% Moisture.....: 25

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...:	6187097					
Lead	12.2	2.0	mg/kg	SW846 6010B	07/06/06	H750N1AD
		Dilution Factor: 1		MDL.....: 0.67		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 780A-1-1,2-1 COMPOSITE

TOTAL Metals

Lot-Sample #...: G6F230422-042

Matrix.....: SOLID

Date Sampled...: 06/22/06

Date Received...: 06/23/06

% Moisture.....: 24

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6187097						
Lead	17.6	2.0	mg/kg	SW846 6010B	07/06/06	H750P1AD
		Dilution Factor: 1		MDL.....: 0.66		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 780A-1-2,2-2 COMPOSITE

TOTAL Metals

Lot-Sample #...: G6F230422-043

Matrix.....: SOLID

Date Sampled...: 06/22/06

Date Received...: 06/23/06

% Moisture.....: 27

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 6187097						
Lead	10.1	2.1	mg/kg	SW846 6010B	07/06/06	H750Q1AD
		Dilution Factor: 1		MDL.....: 0.69		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 780A-3-1,4-1,5-1 COMPOSITE

TOTAL Metals

Lot-Sample #...: G6F230422-044

Matrix.....: SOLID

Date Sampled...: 06/22/06

Date Received...: 06/23/06

% Moisture.....: 25

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6187097						
Lead	33.5	2.0	mg/kg	SW846 60103	07/06/06	H750R1AD
		Dilution Factor: 1		MDL.....: 0.67		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.



Parsons Corporation

Client Sample ID: 780A-3-2,4-2,5-2 COMPOSITE

TOTAL Metals

Lot-Sample #....: G6F230422-045

Matrix.....: SOLID

Date Sampled...: 06/22/06

Date Received...: 06/23/06

% Moisture.....: 23

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #....: 6187097						
Lead	10.7	2.0	mg/kg	SW846 6010B	07/06/06	H750T1AD
		Dilution Factor: 1		MDL.....: 0.65		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 782A-7-1,8-1 COMPOSITE

TOTAL Metals

Lot-Sample #...: G6F230422-049

Matrix.....: SOLID

Date Sampled...: 06/21/06

Date Received...: 06/23/06

% Moisture.....: 24

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6187097						
Lead	4.7	2.0	mg/kg	SW846 6010B	07/06-07/07/06	H75001AD
		Dilution Factor: 1		MDL.....: 0.65		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 782A-7-2,8-2 COMPOSITE

TOTAL Metals

Lot-Sample #...: G6F230422-050

Matrix.....: SOLID

Date Sampled...: 06/21/06

Date Received...: 06/23/06

% Moisture.....: 24

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6187097						
Lead	5.4	2.0	mg/kg	SW846 6010B	07/06-07/07/06	H75011AD
		Dilution Factor: 1		MDL.....: 0.66		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 782A-1-1,2-1 COMPOSITE

TOTAL Metals

Lot-Sample #...: G6F230422-051

Matrix.....: SOLID

Date Sampled...: 06/21/06

Date Received...: 06/23/06

% Moisture.....: 30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...:	6187097					
Lead	7.5	2.1	mg/kg	SW846 6010B	07/06/06	H75021AD
		Dilution Factor: 1		MDL.....: 0.71		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 782A-2-2,1-2 COMPOSITE

TOTAL Metals

Lot-Sample #....: G6F230422-052

Date Sampled....: 06/21/06

Date Received...: 06/23/06

Matrix.....: SOLID

% Moisture.....: 28

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 6187097						
Lead	3.9	2.1	mg/kg	SW846 6010B	07/06-07/07/06	H75031AD
		Dilution Factor: 1		MDL.....: 0.70		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

# QC DATA ASSOCIATION SUMMARY

G6F230422

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
038	SOLID	SW846 6010B		6187097	6187041
039	SOLID	SW846 6010B		6187097	6187041
040	SOLID	SW846 6010B		6187097	6187041
041	SOLID	SW846 6010B		6187097	6187041
042	SOLID	SW846 6010B		6187097	6187041
043	SOLID	SW846 6010B		6187097	6187041
044	SOLID	SW846 6010B		6187097	6187041
045	SOLID	SW846 6010B		6187097	6187041
046	SOLID	SW846 6010B		6187097	6187041
047	SOLID	SW846 6010B		6187097	6187041
048	SOLID	SW846 6010B		6187097	6187041
049	SOLID	SW846 6010B		6187097	6187041
050	SOLID	SW846 6010B		6187097	6187041
051	SOLID	SW846 6010B		6187097	6187041
052	SOLID	SW846 6010B		6187097	6187041
053	SOLID	SW846 6010B		6187097	6187041

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: G6F230422

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
-----------	--------	--------------------	-------	--------	-------------------------------	-----------------

MB Lot-Sample #: G6G060000-097 Prep Batch #...: 6187097

Lead	ND	1.5	mg/kg	SW846 6010B	07/06-07/07/06	H8PT91AA
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Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

# LABORATORY CONTROL SAMPLE DATA REPORT

## TOTAL Metals

Client Lot #...: G6F230422

Matrix.....: SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
-----------	-----------------	--------------------	-------	------------------	--------	-------------------------------	-----------------

LCS Lot-Sample#: G6G060000-097 Prep Batch #...: 6187097

Lead	50.0	47.8	mg/kg	96	SW846 6010B	07/06-07/07/06	H8PT91AC
			Dilution Factor: 1				

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.



LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: G6F230422

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
------------------	-----------------------------	----------------------------	---------------	---------------------------------------	---------------------

LCS Lot-Sample#: G6G060000-097 Prep Batch #...: 6187097

Lead	96	(80 - 120)	SW846 6010B	07/06-07/07/06	H8PT91AC
		Dilution Factor: 1			

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

# MATRIX SPIKE SAMPLE DATA REPORT

## TOTAL Metals

Client Lot #...: G6F230422

Matrix.....: SOLID

Date Sampled...: 06/22/06

Date Received...: 06/23/06

PARAMETER	AMOUNT	AMT	MEASRD	AMOUNT	UNITS	PERCNT	RECVRY	RPD	METHOD	PREPARATION-	WORK
										ANALYSIS DATE	ORDER #

MS Lot-Sample #: G6F230422-038 Prep Batch #...: 6187097

% Moisture.....: 28

Lead

28.7	71.3	92.8	mg/kg	90		SW846 6010B	07/06/06	H75X11AF
28.7	70.6	77.3 N	mg/kg	69	18	SW846 6010B	07/06-07/07/06	H75X11AG

Dilution Factor: 1

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

# MATRIX SPIKE SAMPLE EVALUATION REPORT

## TOTAL Metals

Client Lot #....: G6F230422

Matrix.....: SOLID

Date Sampled....: 06/22/06

Date Received...: 06/23/06

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
-----------	---------------------	--------------------	-----	---------------	--------	-------------------------------	-----------------

MS Lot-Sample #: G6F230422-038 Prep Batch #....: 6187097

% Moisture.....: 28

Lead	90	(80 - 120)			SW846 6010B	07/06/06	H75X11AF
	69 N	(80 - 120) 18	(0-30)		SW846 6010B	07/06-07/07/06	H75X11AG
Dilution Factor: 1							

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.



# STL

**STL Sacramento**  
880 Riverside Parkway  
West Sacramento, CA 95605

Tel: 916 373 5600 Fax: 916 372 1059  
www.stl-inc.com

July 29, 2006

**STL SACRAMENTO PROJECT NUMBER: G6F300327**  
**PO/CONTRACT:**

(b) (6)

Parsons Corporation  
1132 Bishop St. Suite 2102  
Honolulu, HI 96813

Dear (b) (6)

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on June 30, 2006. These samples are associated with your 442221 project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (b) (6)

Sincerely,

(b) (6)

Project Manager

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### **STL SACRAMENTO PROJECT NUMBER G6F300327**

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STL Sacramento Quality Assurance Program

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Chain of Custody Documentation

SOLID, 8081A, Pesticides STD List

Samples: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 33, 34

Sample Data Sheets

Method Blank Reports

Laboratory QC Reports

SOLID, 6010B, Pb only

Samples: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 33, 34

Sample Data Sheets

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## **CASE NARRATIVE**

### **STL SACRAMENTO PROJECT NUMBER G6F300327**

#### **General Comments**

The samples were received at 2, 6 and 8 degrees C. The sample series 2795 and 2802 were received at 8 degrees C. Per your approval on July 3, 2006 these samples were analyzed. Sample 2802A-9-2 was not received, instead 2 jars labeled 2802A-9-1 were received. Per your instruction the containers were analyzed as samples 2802A-9-1A and 2802A-9-1B. Therefore these samples were not to be part of the composite series indicated on the Chain of Custody (COC). Four samples were received that were not listed on the COC-samples 2802A-12-1; 2802A-12-2; 2802A-13-1 and 2802A-13-2. Per your instruction samples 2802A-12-1 and 2802A-13-1 were composited together. Samples 2802A-12-2 and 2802A-13-2 were composited together.

#### **SOLID, 8081A, Pesticides STD List**

Sample(s): 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 33, 34

Aldrin and 4,4'-DDT was detected in the method blank (MB) at concentrations that are above the method detection limit but less than ½ the reporting limit. Samples with positive detections of these analytes have been B flagged to indicate this.

There were no other anomalies associated with this project.

## STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX 270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666		

\*NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

## QC Parameter Definitions

**QC Batch:** The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

**Method Blank:** An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

**Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD):** An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

**Duplicate Sample (DU):** Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

**Surrogates:** Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

**Matrix Spike and Matrix Spike Duplicate (MS/MSD):** An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

**Isotope Dilution:** For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

**Control Limits:** The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

## Sample Summary

### G6F300327

<u>WO#</u>	<u>Sample #</u>	<u>Client Sample ID</u>	<u>Sampling Date</u>	<u>Received Date</u>
H8KN2	1	2802A-4-1,5-1,6-1,7-1,8-1	6/27/2006 12:55 PM	6/30/2006 09:25 AM
H8KPE	2	2802A-4-1,5-1,6-1,7-1,8-1 COMP	6/27/2006 12:55 PM	6/30/2006 09:25 AM
H8KPG	3	2802A-4-2,5-2,6-2,7-2,8-2	6/27/2006 12:55 PM	6/30/2006 09:25 AM
H8KPH	4	2802A-4-2,5-2,6-2,7-2,8-2 COMP	6/27/2006 12:55 PM	6/30/2006 09:25 AM
H8KPM	5	677B-3-1,4-1,5-1	6/28/2006 09:15 AM	6/30/2006 09:25 AM
H8KPP	6	677B-3-1,4-1,5-1 COMP	6/28/2006 09:15 AM	6/30/2006 09:25 AM
H8KPQ	7	677B-3-2,4-2,5-2	6/28/2006 09:15 AM	6/30/2006 09:25 AM
H8KPR	8	677B-3-2,4-2,5-2 COMP	6/28/2006 09:15 AM	6/30/2006 09:25 AM
H8KQD	9	677B-1-1,2-1	6/28/2006 09:05 AM	6/30/2006 09:25 AM
H8KQK	10	677B-1-1,2-1 COMP	6/28/2006 09:05 AM	6/30/2006 09:25 AM
H8KQL	11	677B-1-2,2-2	6/28/2006 09:05 AM	6/30/2006 09:25 AM
H8KQN	12	677B-1-2,2-2 COMP	6/28/2006 09:05 AM	6/30/2006 09:25 AM
H8KQR	13	677B-7-1,8-1	6/28/2006 08:40 AM	6/30/2006 09:25 AM
H8KQ3	14	677B-7-1,8-1 COMP	6/28/2006 08:40 AM	6/30/2006 09:25 AM
H8KQ5	15	677B-7-2,8-2	6/28/2006 08:40 AM	6/30/2006 09:25 AM
H8KQ8	16	677B-7-2,8-2 COMP	6/28/2006 08:40 AM	6/30/2006 09:25 AM
H8KRA	17	2795A-4-1,5-1,6-1,7-1,8-1,9-1	6/29/2006 09:35 AM	6/30/2006 09:25 AM
H8KRF	18	2795A-4-1,5-1,6-1,7-1,8-1,9-1 COMP	6/29/2006 09:35 AM	6/30/2006 09:25 AM
H8KRH	19	2795A-4-2,5-2,6-2,7-2,8-2,9-2	6/29/2006 09:35 AM	6/30/2006 09:25 AM
H8KRJ	20	2795A-4-2,5-2,6-2,7-2,8-2,9-2 COMP	6/29/2006 09:35 AM	6/30/2006 09:25 AM
H8KRN	21	2795A-12-1,13-1,14-1	6/29/2006 08:45 AM	6/30/2006 09:25 AM
H8KRW	22	2795A-12-1,13-1,14-1 COMP	6/29/2006 08:45 AM	6/30/2006 09:25 AM
H8KR0	23	2795A-12-2,13-2,14-2	6/29/2006 08:45 AM	6/30/2006 09:25 AM
H8KR4	24	2795A-12-2,13-2,14-2 COMP	6/29/2006 08:45 AM	6/30/2006 09:25 AM
H8KR6	25	2795A-1-1,2-1,3-1	6/29/2006 09:42 AM	6/30/2006 09:25 AM
H8KTE	26	2795A-1-1,2-1,3-1 COMP	6/29/2006 09:42 AM	6/30/2006 09:25 AM
H8KTF	27	2795A-1-2,2-2,3-2	6/29/2006 09:42 AM	6/30/2006 09:25 AM
H8KTK	28	2795A-1-2,2-2,3-2 COMP	6/29/2006 09:42 AM	6/30/2006 09:25 AM
H8KTM	29	2802A-12-1,13-1	6/27/2006 11:05 AM	6/30/2006 09:25 AM
H8KVD	30	2802A-12-1,13-1 COMP	6/27/2006 11:05 AM	6/30/2006 09:25 AM
H8KVE	31	2802A-12-2,13-2	6/27/2006 11:05 AM	6/30/2006 09:25 AM
H8KVF	32	2802A-12-2,13-2 COMP	6/27/2006 11:05 AM	6/30/2006 09:25 AM
H8KVG	33	2802A-9-1A	6/27/2006 02:05 PM	6/30/2006 09:25 AM
H8KVQ	34	2802A-9-1B	6/27/2006 02:05 PM	6/30/2006 09:25 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight



## CHAIN-OF-CUSTODY RECORD

CLIENT: ParsonsADDRESS: 1132 Bishop st # ~~1132~~ 2102PHONE: 808 748 7576FAX: 808 748 7575EMAIL: (b) (6) @ parsons.comCLIENT PROJECT #: 442221Project Manager: (b) (6)TAT (circle one): 24-hr. 48-hr. 5-day or Other: STDDATE: 6-29-06PAGE 4 OF 6

ESN PROJECT #:

LOCATION/PROJECT NAME: camp stover / camp smithCOLLECTOR: BM / KBDATE COLLECTED: 6-27-06

Sample ID#	Depth	Time	Sample Type	Container Type	8021b HVOC	8021b VOC	8021b BTEX	8021b MIBE	8015 Fuel Scan	8015 TPH-Gas	8015 TPH-Diesel	8015 TPH-Oil	8081 Pest.	8082 PCB	8100 PAH	8270 PAH	1010 FlashPoint	RCRA 8 Metals	Total: Pb Cd Cr As Hg or	TCLP	Lead 6010	Comments	# of Containers
1 2802A-4-1	1.0	1255	soil	4oz jar																			1
2 2802A-5-1	1.0	1315																					1
3 2802A-6-1	1.0	1325																					1
4 2802A-7-1	1.0	1345											X								X	composite	1
5 2802A-8-1	1.0	1355																					1
6 2802A-9-1	1.0	1405																					1
7 2802A-4-2	2.0	1255																					1
8 2802A-5-2	2.0	1315																					1
9 2802A-6-2	2.0	1325																					1
10 2802A-7-2	2.0	1345											X								X	comp	1
11 2802A-8-2	2.0	1355																					1
12 2802A-9-2	2.0	1405																					1
13 677B-3-1	1.0	0915																					1
14 677B-4-1	1.0	0920											X								X	comp	1
15 677B-5-1	1.0	0925																					1
16 677B-3-2	2.0	0915																					1
17 677B-4-2	2.0	0920											X								X	comp	1
18 677B-5-2	2.0	0925																					1
19																							
20																							

RELINQUISHED BY: (Signature)

(b) (6)

DATE/TIME

6-29-06/1500

DATE/TIME

RECEIVED BY (Signature)

(b) (6)

1300  
6/29/06

RECEIVED BY (Signature)

SAMPLE RECEIPT:

TOTAL # OF CONTAINERS

COC SEALS Y / N / NA

SEALS INTACT Y / N / NA

RECEIVED TEMP:

LABORATORY NOTES:

\* did not receive ass 10-06  
 \*\* rec'd 2 jars  
 rec'd 2802A-12-1, 12-2, 13-1  
 15-2

SAMPLE DISPOSAL INSTRUCTIONS: \_\_\_\_\_ ESN Dispose @ \$2.00/sample or \_\_\_\_\_ Return to Client

## CHAIN-OF-CUSTODY RECORD

CLIENT: ParsonsADDRESS: 1132 Bishop st # 2102PHONE: 808 748 7576FAX: 808 748 7575EMAIL: (b) (6) @ parsons . com

CLIENT PROJECT #:

Project Manager:

TAT (circle one): 24-hr. 48-hr. 5-day or Other: STDDATE: 6-29-06PAGE 5 OF 6

ESN PROJECT #:

LOCATION/PROJECT NAME: camp smith / camp stoverCOLLECTOR: BM/KBDATE COLLECTED: 6-28-06

Sample ID#	Depth	Time	Sample Type	Container Type	8021b HVOC	8021b VOC	8021b BTEX	8021b MIBE	8015 Fuel Scan	8015 TPH-Gas	8015 TPH-Diesel	8015 TPH-Oil	8081 Pest.	8082 PCB	8100 PAH	8270 PAH	1010 FlashPoint	RCRA 8 Metals	Total: Pb Cd Cr As Hg or	TCLP	Lead 6010	Comments	# of Containers
1 677B-1-1	1.0	0905	soil	4oz jar																			1
2 677B-2-1	1.0	0933											X								X	Composite	1
3 677B-1-2	2.0	0905																					1
4 677B-2-2	2.0	0933											X								X	comp	1
5 677B-7-1	1.0	0840																					1
6 677B-8-1	1.0	0850											X								X	comp	1
7 677B-7-2	2.0	0840																					1
8 677B-8-2	2.0	0850											X								X	comp	1
9 2795A-4-1	1.0	0935																					1
10 2795A-5-1	1.0	0950																					1
11 2795A-6-1	1.0	0957																					1
12 2795A-7-1	1.0	1010											X								X	comp	1
13 2795A-8-1	1.0	1017																					1
14 2795A-9-1	1.0	1030																					1
15 2795A-4-2	2.0	0935																					1
16 2795A-5-2	2.0	0950																					1
17 2795A-6-2	2.0	0957																					1
18 2795A-7-2	2.0	1010											X								X	comp	1
19 2795A-8-2	2.0	1017																					1
20 2795A-9-2	2.0	1030																					1

RELINQUISHED BY: (Signature)

DATE/TIME

(b) (6)

6-29-06/1500

RECIEVED BY (Signature)

DATE/TIME

(b) (6)

1300 6/29/06

RELINQUISHED BY: (Signature)

DATE/TIME

RECIEVED BY (Signature)

DATE/TIME

SAMPLE RECEIPT:

TOTAL # OF CONTAINERS

COC SEALS Y / N / NA

SEALS INTACT Y / N / NA

RECEIVED TEMP:

LABORATORY NOTES:

SAMPLE DISPOSAL INSTRUCTIONS: \_\_\_\_\_ ESN Dispose @ \$2.00/sample or \_\_\_\_\_ Return to Client



# STL

## LOT RECEIPT CHECKLIST STL Sacramento

CLIENT Parsons PM RP LOG # 39750  
LOT# (QUANTIMS ID) G6F300327 QUOTE# 70792 LOCATION W18E

DATE RECEIVED 6/30/06 TIME RECEIVED 0925

Initials RP Date 6-30-06

DELIVERED BY ☒ FEDEX ☐ CA OVERNIGHT ☐ CLIENT  
☐ AIRBORNE ☐ GOLDENSTATE ☐ DHL  
☐ UPS ☐ BAX GLOBAL ☐ GO-GETTERS  
☐ STL COURIER ☐ COURIERS ON DEMAND  
☐ OTHER

CUSTODY SEAL STATUS ☐ INTACT ☐ BROKEN ☒ N/A

CUSTODY SEAL #(S) NA

SHIPPING CONTAINER(S) ☐ STL ☒ CLIENT ☐ N/A

TEMPERATURE RECORD (IN °C) IR 1 ☐ 3 ☒ OTHER ☐

COC #(S) NA

TEMPERATURE BLANK Observed: NA Corrected: NA

SAMPLE TEMPERATURE  
Observed: see sheets Average: see sheets Corrected Average: see sheets

COLLECTOR'S NAME: ☒ Verified from COC ☐ Not on COC

PH MEASURED ☐ YES ☐ ANOMALY ☒ N/A

LABELED BY.....

LABELS CHECKED BY.....

PEER REVIEW ☒ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING  
WETCHEM ☒ N/A  
VOA-ENCORES ☒ N/A

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☒ N/A

☐ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☒ N/A

☒ Clouseau ☐ TEMPERATURE EXCEEDED (2 °C - 6 °C)\*1 ☐ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☒ PM NOTIFIED

Notes: Rec'd 2 jars for 2802A-9-1 + none for 9-2  
QACD 2802A-12-1, 12-2, 13-1, 13-2 not listed on COC



# STL

## MULTI COOLER RECEIPT CHECKLIST STL Sacramento

CLIENT: Parsons LOT# (QUANTIMS ID): G6F300327

TEMPERATURE RECORD (IN °C)			IR	1	3	OTHER	INITIALS	DATE
			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<u>AK</u>	<u>6-30-06</u>
<hr/>								
<b>COOLER ID</b> <u>1</u>								
<b>CUSTODY SEAL STATUS</b>			<input type="checkbox"/> INTACT	<input type="checkbox"/> BROKEN	<input checked="" type="checkbox"/> N/A			
<b>CUSTODY SEAL #(S)</b>			<u>NA</u>					
<b>COC #(S)</b>			<u>NA</u>					
<b>TEMPERATURE BLANK:</b>			<b>OBSERVED:</b>	<u>4</u>		<b>CORRECTED:</b>		
<b>SAMPLE TEMPERATURE:</b>								
<b>OBSERVED:</b>			<u>7</u>	<u>7</u>	<u>4</u>	<b>AVERAGE:</b>	<u>6</u>	<b>CORRECTED:</b> <u>6</u>
<b>SAMPLES / TESTS (IF NCM REQUIRED):</b>								
<hr/>								
<b>COOLER ID</b> <u>2</u>								
<b>CUSTODY SEAL STATUS</b>			<input type="checkbox"/> INTACT	<input type="checkbox"/> BROKEN	<input checked="" type="checkbox"/> N/A			
<b>CUSTODY SEAL #(S)</b>			<u>NA</u>					
<b>COC #(S)</b>			<u>NA</u>					
<b>TEMPERATURE BLANK:</b>			<b>OBSERVED:</b>	<u>8</u>		<b>CORRECTED:</b>		
<b>SAMPLE TEMPERATURE:</b>								
<b>OBSERVED:</b>			<u>9</u>	<u>8</u>	<u>8</u>	<b>AVERAGE:</b>	<u>8</u>	<b>CORRECTED:</b> <u>8</u>
<b>SAMPLES / TESTS (IF NCM REQUIRED):</b>			<u>2795, 2789, 2809, 2102, 77B</u>					
<hr/>								
<b>COOLER ID</b> <u>3</u>								
<b>CUSTODY SEAL STATUS</b>			<input type="checkbox"/> INTACT	<input type="checkbox"/> BROKEN	<input checked="" type="checkbox"/> N/A			
<b>CUSTODY SEAL #(S)</b>			<u>NA</u>					
<b>COC #(S)</b>			<u>NA</u>					
<b>TEMPERATURE BLANK:</b>			<b>OBSERVED:</b>	<u>4</u>		<b>CORRECTED:</b>		
<b>SAMPLE TEMPERATURE:</b>								
<b>OBSERVED:</b>			<u>1</u>	<u>6</u>	<u>4</u>	<b>AVERAGE:</b>	<u>2</u>	<b>CORRECTED:</b> <u>2</u>
<b>SAMPLES / TESTS (IF NCM REQUIRED):</b>								
<hr/>								

LEAVE NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE. INITIAL AND DATE ALL "N/A" ENTRIES.

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Lot  
ID:

G6F300327

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
VOAh*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
AGB																				
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
___AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
___CGJ																				
500CGJ																				
250CGJ																				
125CGJ	5	X	5	X	3	X	3	X	2	X	2	X	2	X	2	X	6	X	6	X
PJ																				
PJn																				
500PJ																				
500PJn																				
500PJna																				
500PJzn/na																				
250PJ																				
250PJn																				
250PJna																				
250PJzn/na																				
Acetate Tube																				
___"CT																				
Encore																				
Folder/filter																				
PUF																				
Petri/Filter																				
XAD Trap																				
Ziploc																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

h = hydrochloric acid    s = sulfuric acid    na = sodium hydroxide    n = nitric acid    zn = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
VOA*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
VOAh*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
AGB																				
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
___AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
___CGJ																				
500CGJ																				
250CGJ																				
125CGJ	3	X	3	X	3	X	3	X	2	X	2	X	1							
PJ																				
PJn																				
500PJ																				
500PJn																				
500PJna																				
500PJzn/na																				
250PJ																				
250PJn																				
250PJna																				
250PJzn/na																				
Acetate Tube																				
___"CT																				
Encore																				
Folder/filter																				
PUF																				
Petri/Filter																				
XAD Trap																				
Ziploc																				
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

h = hydrochloric acid   s = sulfuric acid   na = sodium hydroxide   n = nitric acid   zn = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

# SOLID, 8081A, Pesticides STD List

Parsons Corporation

Client Sample ID: 677B-3-1,4-1,5-1 COMP

GC Semivolatiles

Lot-Sample #....: G6F300327-006    Work Order #....: H8KPP1AA    Matrix.....: SOLID  
 Date Sampled....: 06/28/06    Date Received...: 06/30/06  
 Prep Date.....: 07/11/06    Analysis Date...: 07/22/06  
 Prep Batch #....: 6192249  
 Dilution Factor: 20  
 % Moisture.....: 24    Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
alpha-BHC	ND	45	ug/kg	3.1
gamma-BHC (Lindane)	ND	45	ug/kg	3.4
Heptachlor	ND	45	ug/kg	4.3
<b>Aldrin</b>	<b>12 J,B</b>	<b>45</b>	<b>ug/kg</b>	<b>3.0</b>
beta-BHC	ND	45	ug/kg	3.1
delta-BHC	ND	45	ug/kg	1.7
Heptachlor epoxide	ND	45	ug/kg	2.8
Endosulfan I	ND	45	ug/kg	4.5
gamma-Chlordane	ND	45	ug/kg	4.1
alpha-Chlordane	ND	45	ug/kg	5.6
4,4'-DDE	ND	89	ug/kg	6.6
<b>Dieldrin</b>	<b>620</b>	<b>89</b>	<b>ug/kg</b>	<b>5.9</b>
Endrin	ND	89	ug/kg	7.7
4,4'-DDD	ND	89	ug/kg	6.9
Endosulfan II	ND	89	ug/kg	8.1
<b>4,4'-DDT</b>	<b>11 J,B</b>	<b>89</b>	<b>ug/kg</b>	<b>3.4</b>
Endrin aldehyde	ND	89	ug/kg	4.5
Methoxychlor	ND	450	ug/kg	33
Endosulfan sulfate	ND	89	ug/kg	5.7
Endrin ketone	ND	89	ug/kg	6.2
Toxaphene	ND	1800	ug/kg	560
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Decachlorobiphenyl	0.0 SRD		(55 - 130)	
Tetrachloro-m-xylene	0.0 SRD		(70 - 125)	

**NOTE(S) :**

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.



Parsons Corporation

Client Sample ID: 677B-3-2,4-2,5-2 COMP

GC Semivolatiles

Lot-Sample #...: G6F300327-008    Work Order #...: H8KPR1AA    Matrix.....: SOLID  
 Date Sampled...: 06/28/06    Date Received...: 06/30/06  
 Prep Date.....: 07/11/06    Analysis Date...: 07/22/06  
 Prep Batch #...: 6192249  
 Dilution Factor: 10  
 % Moisture.....: 25    Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
alpha-BHC	ND	23	ug/kg	1.6
gamma-BHC (Lindane)	ND	23	ug/kg	1.7
Heptachlor	ND	23	ug/kg	2.2
Aldrin	ND	23	ug/kg	1.5
beta-BHC	ND	23	ug/kg	1.6
delta-BHC	ND	23	ug/kg	0.88
Heptachlor epoxide	ND	23	ug/kg	1.4
Endosulfan I	ND	23	ug/kg	2.3
gamma-Chlordane	ND	23	ug/kg	2.1
alpha-Chlordane	ND	23	ug/kg	2.8
4,4'-DDE	19 J	45	ug/kg	3.4
Dieldrin	180	45	ug/kg	3.0
Endrin	ND	45	ug/kg	3.9
4,4'-DDD	5.9 J	45	ug/kg	3.5
Endosulfan II	ND	45	ug/kg	4.1
4,4'-DDT	29 J,B	45	ug/kg	1.7
Endrin aldehyde	ND	45	ug/kg	2.3
Methoxychlor	ND	230	ug/kg	17
Endosulfan sulfate	ND	45	ug/kg	2.9
Endrin ketone	ND	45	ug/kg	3.1
Toxaphene	ND	900	ug/kg	290
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Decachlorobiphenyl	0.0 SRD		(55 - 130)	
Tetrachloro-m-xylene	0.0 SRD		(70 - 125)	

**NOTE(S) :**

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Parsons Corporation

Client Sample ID: 677B-1-1,2-1 COMP

GC Semivolatiles

Lot-Sample #....: G6F300327-010      Work Order #....: H8KQK1AA      Matrix.....: SOLID  
 Date Sampled....: 06/28/06      Date Received...: 06/30/06  
 Prep Date.....: 07/11/06      Analysis Date...: 07/22/06  
 Prep Batch #....: 6192249  
 Dilution Factor: 5  
 % Moisture.....: 17      Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
alpha-BHC	ND	10	ug/kg	0.70
gamma-BHC (Lindane)	ND	10	ug/kg	0.77
Heptachlor	ND	10	ug/kg	0.99
Aldrin	ND	10	ug/kg	0.68
beta-BHC	ND	10	ug/kg	0.70
delta-BHC	ND	10	ug/kg	0.39
Heptachlor epoxide	ND	10	ug/kg	0.63
Endosulfan I	ND	10	ug/kg	1.0
gamma-Chlordane	2.7 J	10	ug/kg	0.93
alpha-Chlordane	1.6 J	10	ug/kg	1.3
4,4'-DDE	75	20	ug/kg	1.5
Dieldrin	ND	20	ug/kg	1.3
Endrin	ND	20	ug/kg	1.8
4,4'-DDD	6.2 J	20	ug/kg	1.6
Endosulfan II	ND	20	ug/kg	1.8
4,4'-DDT	320 B	20	ug/kg	0.78
Endrin aldehyde	ND	20	ug/kg	1.0
Methoxychlor	ND	100	ug/kg	7.5
Endosulfan sulfate	ND	20	ug/kg	1.3
Endrin ketone	ND	20	ug/kg	1.4
Toxaphene	ND	400	ug/kg	130
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Decachlorobiphenyl	0.0 SRD		(55 - 130)	
Tetrachloro-m-xylene	0.0 SRD		(70 - 125)	

**NOTE(S) :**

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Parsons Corporation

Client Sample ID: 677B-1-2,2-2 COMP

GC Semivolatiles

Lot-Sample #...: G6F300327-012 Work Order #...: H8KQN1AA Matrix.....: SOLID  
 Date Sampled...: 06/28/06 Date Received...: 06/30/06  
 Prep Date.....: 07/11/06 Analysis Date...: 07/24/06  
 Prep Batch #...: 6192249  
 Dilution Factor: 1  
 % Moisture.....: 22 Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
alpha-BHC	ND	2.2	ug/kg	0.15
gamma-BHC (Lindane)	ND	2.2	ug/kg	0.17
Heptachlor	ND	2.2	ug/kg	0.21
Aldrin	0.39 J,B	2.2	ug/kg	0.15
beta-BHC	ND	2.2	ug/kg	0.15
delta-BHC	ND	2.2	ug/kg	0.084
Heptachlor epoxide	ND	2.2	ug/kg	0.14
Endosulfan I	ND	2.2	ug/kg	0.22
gamma-Chlordane	1.0 J	2.2	ug/kg	0.20
alpha-Chlordane	0.60 J	2.2	ug/kg	0.27
4,4'-DDE	28	4.4	ug/kg	0.32
Dieldrin	0.46 J	4.4	ug/kg	0.29
Endrin	ND	4.4	ug/kg	0.38
4,4'-DDD	1.4 J	4.4	ug/kg	0.34
Endosulfan II	ND	4.4	ug/kg	0.40
4,4'-DDT	61 B	4.4	ug/kg	0.17
Endrin aldehyde	ND	4.4	ug/kg	0.22
Methoxychlor	ND	22	ug/kg	1.6
Endosulfan sulfate	ND	4.4	ug/kg	0.28
Endrin ketone	ND	4.4	ug/kg	0.30
Toxaphene	ND	86	ug/kg	27
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Decachlorobiphenyl	89		(55 - 130)	
Tetrachloro-m-xylene	81		(70 - 125)	

**NOTE (S) :**

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Parsons Corporation

Client Sample ID: 677B-7-1,8-1 COMP

GC Semivolatiles

Lot-Sample #....: G6F300327-014    Work Order #....: H8KQ31AA    Matrix.....: SOLID  
 Date Sampled....: 06/28/06    Date Received...: 06/30/06  
 Prep Date.....: 07/11/06    Analysis Date...: 07/23/06  
 Prep Batch #....: 6192249  
 Dilution Factor: 200  
 % Moisture.....: 16    Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
alpha-BHC	ND	410	ug/kg	28
gamma-BHC (Lindane)	ND	410	ug/kg	31
Heptachlor	ND	410	ug/kg	39
<b>Aldrin</b>	<b>5600 B</b>	<b>410</b>	<b>ug/kg</b>	<b>27</b>
beta-BHC	ND	410	ug/kg	28
delta-BHC	ND	410	ug/kg	16
Heptachlor epoxide	ND	410	ug/kg	25
Endosulfan I	ND	410	ug/kg	41
gamma-Chlordane	ND	410	ug/kg	37
alpha-Chlordane	ND	410	ug/kg	51
4,4'-DDE	ND	810	ug/kg	60
<b>Dieldrin</b>	<b>11000</b>	<b>810</b>	<b>ug/kg</b>	<b>54</b>
Endrin	ND	810	ug/kg	70
4,4'-DDD	ND	810	ug/kg	63
Endosulfan II	ND	810	ug/kg	74
4,4'-DDT	ND	810	ug/kg	31
Endrin aldehyde	ND	810	ug/kg	41
Methoxychlor	ND	4100	ug/kg	300
Endosulfan sulfate	ND	810	ug/kg	52
<b>Endrin ketone</b>	<b>350 J</b>	<b>810</b>	<b>ug/kg</b>	<b>56</b>
Toxaphene	ND	16000	ug/kg	5100
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Decachlorobiphenyl	0.0 SRD		(55 - 130)	
Tetrachloro-m-xylene	0.0 SRD		(70 - 125)	

**NOTE(S) :**

- SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.  
 Results and reporting limits have been adjusted for dry weight.  
 B Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 J Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: 677B-7-2,8-2 COMP

GC Semivolatiles

Lot-Sample #...: G6F300327-016    Work Order #...: H8KQ81AA    Matrix.....: SOLID  
 Date Sampled...: 06/28/06    Date Received...: 06/30/06  
 Prep Date.....: 07/11/06    Analysis Date...: 07/23/06  
 Prep Batch #...: 6192249  
 Dilution Factor: 200  
 % Moisture.....: 24    Method.....: SW846 8081A

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
alpha-BHC	ND	450	ug/kg	31
gamma-BHC (Lindane)	ND	450	ug/kg	34
Heptachlor	ND	450	ug/kg	43
<b>Aldrin</b>	<b>550 B</b>	<b>450</b>	<b>ug/kg</b>	<b>30</b>
beta-BHC	ND	450	ug/kg	31
delta-BHC	ND	450	ug/kg	17
Heptachlor epoxide	ND	450	ug/kg	28
Endosulfan I	ND	450	ug/kg	45
gamma-Chlordane	ND	450	ug/kg	41
alpha-Chlordane	ND	450	ug/kg	56
4,4'-DDE	ND	890	ug/kg	66
<b>Dieldrin</b>	<b>5500</b>	<b>890</b>	<b>ug/kg</b>	<b>59</b>
Endrin	ND	890	ug/kg	77
4,4'-DDD	ND	890	ug/kg	69
Endosulfan II	ND	890	ug/kg	81
4,4'-DDT	ND	890	ug/kg	34
Endrin aldehyde	ND	890	ug/kg	45
Methoxychlor	ND	4500	ug/kg	330
Endosulfan sulfate	ND	890	ug/kg	57
<b>Endrin ketone</b>	<b>240 J</b>	<b>890</b>	<b>ug/kg</b>	<b>62</b>
Toxaphene	ND	18000	ug/kg	5600
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Decachlorobiphenyl	0.0 SRD		(55 - 130)	
Tetrachloro-m-xylene	0.0 SRD		(70 - 125)	

**NOTE (S) :**

SRD The surrogate recovery was not calculated because the extract was diluted beyond the ability to quantitate a recovery.

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J Estimated result. Result is less than RL.

# QC DATA ASSOCIATION SUMMARY

G6F300327

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
002	SOLID	ASTM D 2216-90		6186274	6186176
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
004	SOLID	ASTM D 2216-90		6186274	6186176
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
006	SOLID	ASTM D 2216-90		6186274	6186176
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
008	SOLID	ASTM D 2216-90		6186274	6186176
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
010	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
012	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
014	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
016	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
018	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
020	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
022	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206

(Continued on next page)

## QC DATA ASSOCIATION SUMMARY

G6F300327

### Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
024	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
026	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
028	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
030	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
032	SOLID	ASTM D 2216-90		6186275	6186177
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
033	SOLID	ASTM D 2216-90		6207238	6207173
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206
034	SOLID	ASTM D 2216-90		6207238	6207173
	SOLID	SW846 8081A		6192249	6192172
	SOLID	SW846 6010B		6199307	6199206

# METHOD BLANK REPORT

## GC Semivolatiles

Client Lot #...: G6F300327  
MB Lot-Sample #: G6G110000-249

Work Order #....: H80NA1AA

Matrix.....: SOLID

Analysis Date...: 07/21/06  
Dilution Factor: 1

Prep Date.....: 07/11/06

Prep Batch #....: 6192249

PARAMETER	RESULT	REPORTING			METHOD
		LIMIT	UNITS		
alpha-BHC	ND	1.7	ug/kg		SW846 8081A
gamma-BHC (Lindane)	ND	1.7	ug/kg		SW846 8081A
Heptachlor	ND	1.7	ug/kg		SW846 8081A
<b>Aldrin</b>	<b>0.26 J</b>	<b>1.7</b>	<b>ug/kg</b>		<b>SW846 8081A</b>
beta-BHC	ND	1.7	ug/kg		SW846 8081A
delta-BHC	ND	1.7	ug/kg		SW846 8081A
Heptachlor epoxide	ND	1.7	ug/kg		SW846 8081A
Endosulfan I	ND	1.7	ug/kg		SW846 8081A
gamma-Chlordane	ND	1.7	ug/kg		SW846 8081A
alpha-Chlordane	ND	1.7	ug/kg		SW846 8081A
4,4'-DDE	ND	3.4	ug/kg		SW846 8081A
Dieldrin	ND	3.4	ug/kg		SW846 8081A
Endrin	ND	3.4	ug/kg		SW846 8081A
4,4'-DDD	ND	3.4	ug/kg		SW846 8081A
Endosulfan II	ND	3.4	ug/kg		SW846 8081A
<b>4,4'-DDT</b>	<b>0.90 J</b>	<b>3.4</b>	<b>ug/kg</b>		<b>SW846 8081A</b>
Endrin aldehyde	ND	3.4	ug/kg		SW846 8081A
Methoxychlor	ND	17	ug/kg		SW846 8081A
Endosulfan sulfate	ND	3.4	ug/kg		SW846 8081A
Endrin ketone	ND	3.4	ug/kg		SW846 8081A
Toxaphene	ND	67	ug/kg		SW846 8081A

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Decachlorobiphenyl	94	(55 - 130)
Tetrachloro-m-xylene	88	(70 - 125)

### NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.



# LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC Semivolatiles

Client Lot #...: G6F300327      Work Order #...: H80NA1AC      Matrix.....: SOLID  
 LCS Lot-Sample#: G6G110000-249  
 Prep Date.....: 07/11/06      Analysis Date...: 07/21/06  
 Prep Batch #...: 6192249  
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
alpha-BHC	97	(60 - 125)	SW846 8081A
gamma-BHC (Lindane)	91	(60 - 125)	SW846 8081A
Heptachlor	98	(50 - 140)	SW846 8081A
Aldrin	86	(45 - 140)	SW846 8081A
beta-BHC	103	(60 - 125)	SW846 8081A
delta-BHC	100	(55 - 130)	SW846 8081A
Heptachlor epoxide	92	(65 - 130)	SW846 8081A
Endosulfan I	93	(15 - 135)	SW846 8081A
gamma-Chlordane	94	(65 - 125)	SW846 8081A
alpha-Chlordane	95	(65 - 120)	SW846 8081A
4,4'-DDE	99	(70 - 125)	SW846 8081A
Dieldrin	96	(65 - 125)	SW846 8081A
Endrin	103	(60 - 135)	SW846 8081A
4,4'-DDD	102	(30 - 135)	SW846 8081A
Endosulfan II	107	(35 - 140)	SW846 8081A
4,4'-DDT	110	(45 - 140)	SW846 8081A
Endrin aldehyde	73	(35 - 145)	SW846 8081A
Methoxychlor	106	(55 - 145)	SW846 8081A
Endosulfan sulfate	110	(60 - 135)	SW846 8081A
Endrin ketone	107	(60 - 135)	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	94	(55 - 130)
Tetrachloro-m-xylene	83	(70 - 125)

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #....: G6F300327      Work Order #....: H80NA1AC      Matrix.....: SOLID  
 LCS Lot-Sample#: G6G110000-249  
 Prep Date.....: 07/11/06      Analysis Date...: 07/21/06  
 Prep Batch #....: 6192249  
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
alpha-BHC	8.33	8.05	ug/kg	97	SW846 8081A
gamma-BHC (Lindane)	8.33	7.59	ug/kg	91	SW846 8081A
Heptachlor	8.33	8.15	ug/kg	98	SW846 8081A
Aldrin	8.33	7.20	ug/kg	86	SW846 8081A
beta-BHC	8.33	8.61	ug/kg	103	SW846 8081A
delta-BHC	8.33	8.29	ug/kg	100	SW846 8081A
Heptachlor epoxide	8.33	7.62	ug/kg	92	SW846 8081A
Endosulfan I	8.33	7.73	ug/kg	93	SW846 8081A
gamma-Chlordane	8.33	7.85	ug/kg	94	SW846 8081A
alpha-Chlordane	8.33	7.95	ug/kg	95	SW846 8081A
4,4'-DDE	16.7	16.5	ug/kg	99	SW846 8081A
Dieldrin	16.7	16.1	ug/kg	96	SW846 8081A
Endrin	16.7	17.2	ug/kg	103	SW846 8081A
4,4'-DDD	16.7	17.0	ug/kg	102	SW846 8081A
Endosulfan II	16.7	17.9	ug/kg	107	SW846 8081A
4,4'-DDT	16.7	18.4	ug/kg	110	SW846 8081A
Endrin aldehyde	16.7	12.2	ug/kg	73	SW846 8081A
Methoxychlor	83.3	88.3	ug/kg	106	SW846 8081A
Endosulfan sulfate	16.7	18.4	ug/kg	110	SW846 8081A
Endrin ketone	16.7	17.9	ug/kg	107	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	94	(55 - 130)
Tetrachloro-m-xylene	83	(70 - 125)

### NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# MATRIX SPIKE SAMPLE EVALUATION REPORT

## GC Semivolatiles

Client Lot #....: G6F300327      Work Order #....: H8KRJ1AE-MS      Matrix.....: SOLID  
 MS Lot-Sample #: G6F300327-020      H8KRJ1AF-MSD  
 Date Sampled...: 06/29/06      Date Received...: 06/30/06  
 Prep Date.....: 07/11/06      Analysis Date...: 07/22/06  
 Prep Batch #...: 6192249  
 Dilution Factor: 1      % Moisture.....: 21

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
alpha-BHC	86	(60 - 125)			SW846 8081A
	84	(60 - 125)	3.1	(0-30)	SW846 8081A
gamma-BHC (Lindane)	84	(60 - 125)			SW846 8081A
	84	(60 - 125)	0.51	(0-30)	SW846 8081A
Heptachlor	92	(50 - 140)			SW846 8081A
	91	(50 - 140)	0.94	(0-30)	SW846 8081A
Aldrin	83	(45 - 140)			SW846 8081A
	81	(45 - 140)	2.8	(0-30)	SW846 8081A
beta-BHC	100	(60 - 125)			SW846 8081A
	101	(60 - 125)	0.99	(0-30)	SW846 8081A
delta-BHC	93	(55 - 130)			SW846 8081A
	92	(55 - 130)	0.47	(0-30)	SW846 8081A
Heptachlor epoxide	86	(65 - 130)			SW846 8081A
	85	(65 - 130)	0.60	(0-30)	SW846 8081A
Endosulfan I	85	(15 - 135)			SW846 8081A
	84	(15 - 135)	1.6	(0-30)	SW846 8081A
gamma-Chlordane	87	(65 - 125)			SW846 8081A
	87	(65 - 125)	0.50	(0-30)	SW846 8081A
alpha-Chlordane	89	(65 - 120)			SW846 8081A
	88	(65 - 120)	0.13	(0-30)	SW846 8081A
4,4'-DDE	92	(70 - 125)			SW846 8081A
	90	(70 - 125)	1.6	(0-30)	SW846 8081A
Dieldrin	88	(65 - 125)			SW846 8081A
	85	(65 - 125)	3.5	(0-30)	SW846 8081A
Endrin	100	(60 - 135)			SW846 8081A
	98	(60 - 135)	1.8	(0-30)	SW846 8081A
4,4'-DDD	96	(30 - 135)			SW846 8081A
	94	(30 - 135)	2.6	(0-30)	SW846 8081A
Endosulfan II	96	(35 - 140)			SW846 8081A
	93	(35 - 140)	3.0	(0-30)	SW846 8081A
4,4'-DDT	89	(45 - 140)			SW846 8081A
	85	(45 - 140)	4.3	(0-30)	SW846 8081A
Endrin aldehyde	71	(35 - 145)			SW846 8081A
	71	(35 - 145)	0.62	(0-30)	SW846 8081A
Methoxychlor	97	(55 - 145)			SW846 8081A
	95	(55 - 145)	2.0	(0-30)	SW846 8081A
Endosulfan sulfate	101	(60 - 135)			SW846 8081A
	99	(60 - 135)	2.3	(0-30)	SW846 8081A
Endrin ketone	101	(60 - 135)			SW846 8081A
	93	(60 - 135)	8.0	(0-30)	SW846 8081A

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# MATRIX SPIKE SAMPLE EVALUATION REPORT

## GC Semivolatiles

Client Lot #...: G6F300327      Work Order #...: H8KRJ1AE-MS      Matrix.....: SOLID  
MS Lot-Sample #: G6F300327-020      H8KRJ1AF-MSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Decachlorobiphenyl	82	(55 - 130)
	78	(55 - 130)
Tetrachloro-m-xylene	73	(70 - 125)
	70	(70 - 125)

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

# MATRIX SPIKE SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #...: G6F300327      Work Order #...: H8KRJ1AE-MS      Matrix.....: SOLID  
 MS Lot-Sample #: G6F300327-020      H8KRJ1AF-MSD  
 Date Sampled...: 06/29/06      Date Received...: 06/30/06  
 Prep Date.....: 07/11/06      Analysis Date...: 07/22/06  
 Prep Batch #...: 6192249  
 Dilution Factor: 1      % Moisture.....: 21

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
alpha-BHC	ND	10.6	9.16	ug/kg	86		SW846 8081A
	ND	10.6	8.88	ug/kg	84	3.1	SW846 8081A
gamma-BHC (Lindane)	ND	10.6	8.91	ug/kg	84		SW846 8081A
	ND	10.6	8.86	ug/kg	84	0.51	SW846 8081A
Heptachlor	ND	10.6	9.71	ug/kg	92		SW846 8081A
	ND	10.6	9.62	ug/kg	91	0.94	SW846 8081A
Aldrin	0.41	10.6	9.24	ug/kg	83		SW846 8081A
	0.41	10.6	8.99	ug/kg	81	2.8	SW846 8081A
beta-BHC	ND	10.6	10.6	ug/kg	100		SW846 8081A
	ND	10.6	10.7	ug/kg	101	0.99	SW846 8081A
delta-BHC	ND	10.6	9.80	ug/kg	93		SW846 8081A
	ND	10.6	9.76	ug/kg	92	0.47	SW846 8081A
Heptachlor epoxide	ND	10.6	9.09	ug/kg	86		SW846 8081A
	ND	10.6	9.03	ug/kg	85	0.60	SW846 8081A
Endosulfan I	ND	10.6	9.00	ug/kg	85		SW846 8081A
	ND	10.6	8.86	ug/kg	84	1.6	SW846 8081A
gamma-Chlordane	ND	10.6	9.21	ug/kg	87		SW846 8081A
	ND	10.6	9.26	ug/kg	87	0.50	SW846 8081A
alpha-Chlordane	ND	10.6	9.39	ug/kg	89		SW846 8081A
	ND	10.6	9.37	ug/kg	88	0.13	SW846 8081A
4,4'-DDE	ND	21.2	19.5	ug/kg	92		SW846 8081A
	ND	21.2	19.2	ug/kg	90	1.6	SW846 8081A
Dieldrin	0.90	21.2	19.7	ug/kg	88		SW846 8081A
	0.90	21.2	19.0	ug/kg	85	3.5	SW846 8081A
Endrin	ND	21.2	21.2	ug/kg	100		SW846 8081A
	ND	21.2	20.8	ug/kg	98	1.8	SW846 8081A
4,4'-DDD	ND	21.2	20.4	ug/kg	96		SW846 8081A
	ND	21.2	19.9	ug/kg	94	2.6	SW846 8081A
Endosulfan II	ND	21.2	20.4	ug/kg	96		SW846 8081A
	ND	21.2	19.8	ug/kg	93	3.0	SW846 8081A
4,4'-DDT	2.8	21.2	21.6	ug/kg	89		SW846 8081A
	2.8	21.2	20.7	ug/kg	85	4.3	SW846 8081A
Endrin aldehyde	ND	21.2	15.0	ug/kg	71		SW846 8081A
	ND	21.2	15.1	ug/kg	71	0.62	SW846 8081A
Methoxychlor	ND	106	102	ug/kg	97		SW846 8081A
	ND	106	100	ug/kg	95	2.0	SW846 8081A
Endosulfan sulfate	ND	21.2	21.4	ug/kg	101		SW846 8081A
	ND	21.2	21.0	ug/kg	99	2.3	SW846 8081A
Endrin ketone	ND	21.2	21.5	ug/kg	101		SW846 8081A
	ND	21.2	19.9	ug/kg	93	8.0	SW846 8081A

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: G6F300327      Work Order #...: H8KRJ1AE-MS      Matrix.....: SOLID  
MS Lot-Sample #: G6F300327-020      H8KRJ1AF-MSD

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Decachlorobiphenyl	82	(55 - 130)
	78	(55 - 130)
Tetrachloro-m-xylene	73	(70 - 125)
	70	(70 - 125)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

**SOLID, 6010B, Pb only**

Parsons Corporation

Client Sample ID: 677B-3-1,4-1,5-1 COMP

TOTAL Metals

Lot-Sample #...: G6F300327-006

Matrix.....: SOLID

Date Sampled...: 06/28/06

Date Received...: 06/30/06

% Moisture.....: 24

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 6199307						
Lead	10.4	2.0	mg/kg	SW846 6010B	07/18-07/20/06	H8KPP1AD
		Dilution Factor: 1		MDL.....: 0.66		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.



Parsons Corporation

Client Sample ID: 677B-3-2,4-2,5-2 COMP

TOTAL Metals

Lot-Sample #...: G6F300327-008

Matrix.....: SOLID

Date Sampled...: 06/28/06

Date Received...: 06/30/06

% Moisture.....: 25

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 6199307						
Lead	14.3	2.0	mg/kg	SW846 6010B	07/18-07/20/06	H8KPR1AD
		Dilution Factor: 1		MDL.....: 0.67		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 677B-1-1,2-1 COMP

TOTAL Metals

Lot-Sample #...: G6F300327-010

Matrix.....: SOLID

Date Sampled...: 06/28/06

Date Received...: 06/30/06

% Moisture.....: 17

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 6199307						
Lead	17.3	1.8	mg/kg	SW846 6010B	07/18-07/20/06	H8KQKLAD
		Dilution Factor: 1		MDL.....: 0.60		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 677B-1-2,2-2 COMP

TOTAL Metals

Lot-Sample #...: G6F300327-012

Matrix.....: SOLID

Date Sampled...: 06/28/06

Date Received...: 06/30/06

% Moisture.....: 22

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 6199307						
Lead	17.4	1.9	mg/kg	SW846 6010B	07/18-07/20/06	H8KQN1AD
		Dilution Factor: 1		MDL.....: 0.64		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 677B-7-1,8-1 COMP

TOTAL Metals

Lot-Sample #...: G6F300327-014

Matrix.....: SOLID

Date Sampled...: 06/28/06

Date Received...: 06/30/06

% Moisture.....: 16

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...	6199307					
Lead	4.8	1.8	mg/kg	SW846 6010B	07/18-07/20/06	H8KQ31AD
		Dilution Factor: 1		MDL.....: 0.60		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

Parsons Corporation

Client Sample ID: 677B-7-2,8-2 COMP

TOTAL Metals

Lot-Sample #...: G6F300327-016

Matrix.....: SOLID

Date Sampled...: 06/28/06

Date Received...: 06/30/06

% Moisture.....: 24

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 6199307						
Lead	18.3	2.0	mg/kg	SW846 6010B	07/18-07/20/06	H8KQ81AD
		Dilution Factor: 1		MDL.....: 0.66		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

## QC DATA ASSOCIATION SUMMARY

G6F300327

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
002	SOLID	SW846 6010B		6199307	6199206
004	SOLID	SW846 6010B		6199307	6199206
006	SOLID	SW846 6010B		6199307	6199206
008	SOLID	SW846 6010B		6199307	6199206
010	SOLID	SW846 6010B		6199307	6199206
012	SOLID	SW846 6010B		6199307	6199206
014	SOLID	SW846 6010B		6199307	6199206
016	SOLID	SW846 6010B		6199307	6199206
018	SOLID	SW846 6010B		6199307	6199206
020	SOLID	SW846 6010B		6199307	6199206
022	SOLID	SW846 6010B		6199307	6199206
024	SOLID	SW846 6010B		6199307	6199206
026	SOLID	SW846 6010B		6199307	6199206
028	SOLID	SW846 6010B		6199307	6199206
030	SOLID	SW846 6010B		6199307	6199206
032	SOLID	SW846 6010B		6199307	6199206
033	SOLID	SW846 6010B		6199307	6199206
034	SOLID	SW846 6010B		6199307	6199206

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: G6F300327

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
<b>MB Lot-Sample #: G6G180000-307 Prep Batch #...: 6199307</b>						
Lead	ND	1.5	mg/kg	SW846 6010B	07/18-07/20/06	H9F2D1AA
		Dilution Factor: 1				

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

# LABORATORY CONTROL SAMPLE EVALUATION REPORT

## TOTAL Metals

Client Lot #...: G6F300327

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#:	G6G180000-307	Prep Batch #...	6199307		
Lead	96	(80 - 120)	SW846 6010B	07/18-07/20/06	H9F2D1AC
		Dilution Factor:	1		

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.



# LABORATORY CONTROL SAMPLE DATA REPORT

## TOTAL Metals

Client Lot #...: G6F300327

Matrix.....: SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
-----------	-----------------	--------------------	-------	------------------	--------	-------------------------------	-----------------

LCS Lot-Sample#: G6G180000-307 Prep Batch #...: 6199307

Lead	50.0	48.0	mg/kg	96	SW846 6010B	07/18-07/20/06	H9F2D1AC
------	------	------	-------	----	-------------	----------------	----------

Dilution Factor: 1

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

# MATRIX SPIKE SAMPLE EVALUATION REPORT

## TOTAL Metals

Client Lot #...: G6F300327

Matrix.....: SOLID

Date Sampled...: 06/27/06

Date Received...: 06/30/06

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
-----------	---------------------	--------------------	---------------	--------	-------------------------------	-----------------

MS Lot-Sample #: G6F300327-002 Prep Batch #...: 6199307

% Moisture.....: 19

Lead	112	(80 - 120)		SW846 6010B	07/18-07/20/06	H8KPE1AE
	90	(80 - 120) 16	(0-30)	SW846 6010B	07/18-07/20/06	H8KPE1AF

Dilution Factor: 1

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

# MATRIX SPIKE SAMPLE DATA REPORT

## TOTAL Metals

Client Lot #...: G6F300327

Matrix.....: SOLID

Date Sampled...: 06/27/06

Date Received...: 06/30/06

PARAMETER	AMOUNT	SAMPLE SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
-----------	--------	---------------------	------------------	-------	------------------	-----	--------	-------------------------------	-----------------

MS Lot-Sample #: G6F300327-002 Prep Batch #...: 6199307

% Moisture.....: 19

Lead

21.9	61.6	91.1	mg/kg	112			SW846 6010B	07/18-07/20/06	H8KPE1AE
21.9	61.6	77.3	mg/kg	90	16		SW846 6010B	07/18-07/20/06	H8KPE1AF

Dilution Factor: 1

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

**TRACK ► INFO SERVICES, LLC**

# **Environmental FirstSearch™ Report**

Target Property: Camp Smith Marine Corps Family Housing

**HONOLULU HI 96844**

Job Number: 071607

**PREPARED FOR:**

Parsons

100 West Walnut Street

Pasadena, CA 91124

07-16-07



*Tel: (866) 664-9981*

*Fax: (818) 249-4227*

# Environmental FirstSearch Search Summary Report

## Target Site:

HONOLULU HI 96844

### FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	05-08-07	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	03-08-07	0.50	0	0	0	0	-	0	0
CERCLIS	Y	05-08-07	0.50	0	0	0	0	-	0	0
NFRAP	Y	05-08-07	0.50	0	0	0	0	-	1	1
RCRA COR ACT	Y	06-06-06	1.00	0	0	0	0	0	0	0
RCRA TSD	Y	06-06-06	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	06-06-06	0.25	0	0	1	-	-	2	3
RCRA NLR	Y	06-06-06	0.12	0	0	-	-	-	0	0
Federal IC / EC	Y	04-16-07	0.25	0	0	0	-	-	0	0
ERNS	Y	12-31-06	0.12	0	0	-	-	-	0	0
Tribal Lands	Y	12-01-05	1.00	0	0	0	0	0	0	0
State/Tribal Sites	Y	07-24-06	1.00	0	0	0	0	1	0	1
State/Tribal SWL	Y	NA	0.50	0	0	0	0	-	0	0
State/Tribal LUST	Y	07-28-06	0.50	0	0	0	0	-	0	0
State/Tribal UST/AST	Y	08-04-06	0.25	0	0	0	-	-	0	0
State/Tribal EC	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal IC	Y	07-24-06	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	07-24-06	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	07-24-06	0.50	0	0	0	0	-	0	0
State ACEC	Y	NA	0.50	0	0	0	0	-	0	0
Wetlands	Y	NA	0.50	0	0	0	0	-	0	0
Floodplains	Y	NA	0.50	0	0	0	0	-	0	0
Receptors	Y	01-01-05	0.50	0	0	0	0	-	0	0
Historic Landmarks	Y	11-17-05	0.50	0	0	0	0	-	0	0
Federal Land Use	Y	08-01-06	0.50	1	0	0	0	-	0	1
Federal Wells	Y	12-28-06	0.50	0	0	0	0	-	0	0
NPDES	Y	12-15-06	0.25	0	0	0	-	-	0	0
FINDS	Y	11-01-06	0.25	0	0	1	-	-	0	1
TRIS	Y	11-10-06	0.25	0	0	0	-	-	0	0

### Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

### Waiver of Liability

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services's services proceeding are signifying an understanding of TRACK Info Services's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

- Continued on next page -

# ***Environmental FirstSearch Search Summary Report***

## **Target Site:**

HONOLULU HI 96844

### **FirstSearch Summary**

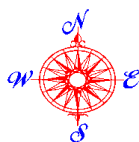
<b>Database</b>	<b>Sel</b>	<b>Updated</b>	<b>Radius</b>	<b>Site</b>	<b>1/8</b>	<b>1/4</b>	<b>1/2</b>	<b>1/2&gt;</b>	<b>ZIP</b>	<b>TOTALS</b>
HMIRS	Y	04-16-07	0.25	0	0	0	-	-	0	0
NCDB	Y	09-22-06	0.25	0	0	0	-	-	0	0
PADS	Y	04-12-07	0.25	0	0	0	-	-	0	0
Releases	Y	12-31-06	0.25	0	0	0	-	-	0	0
Federal Other	Y	05-21-07	0.25	0	0	0	-	-	0	0
- TOTALS -				1	0	2	0	1	3	7

### **Notice of Disclaimer**

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

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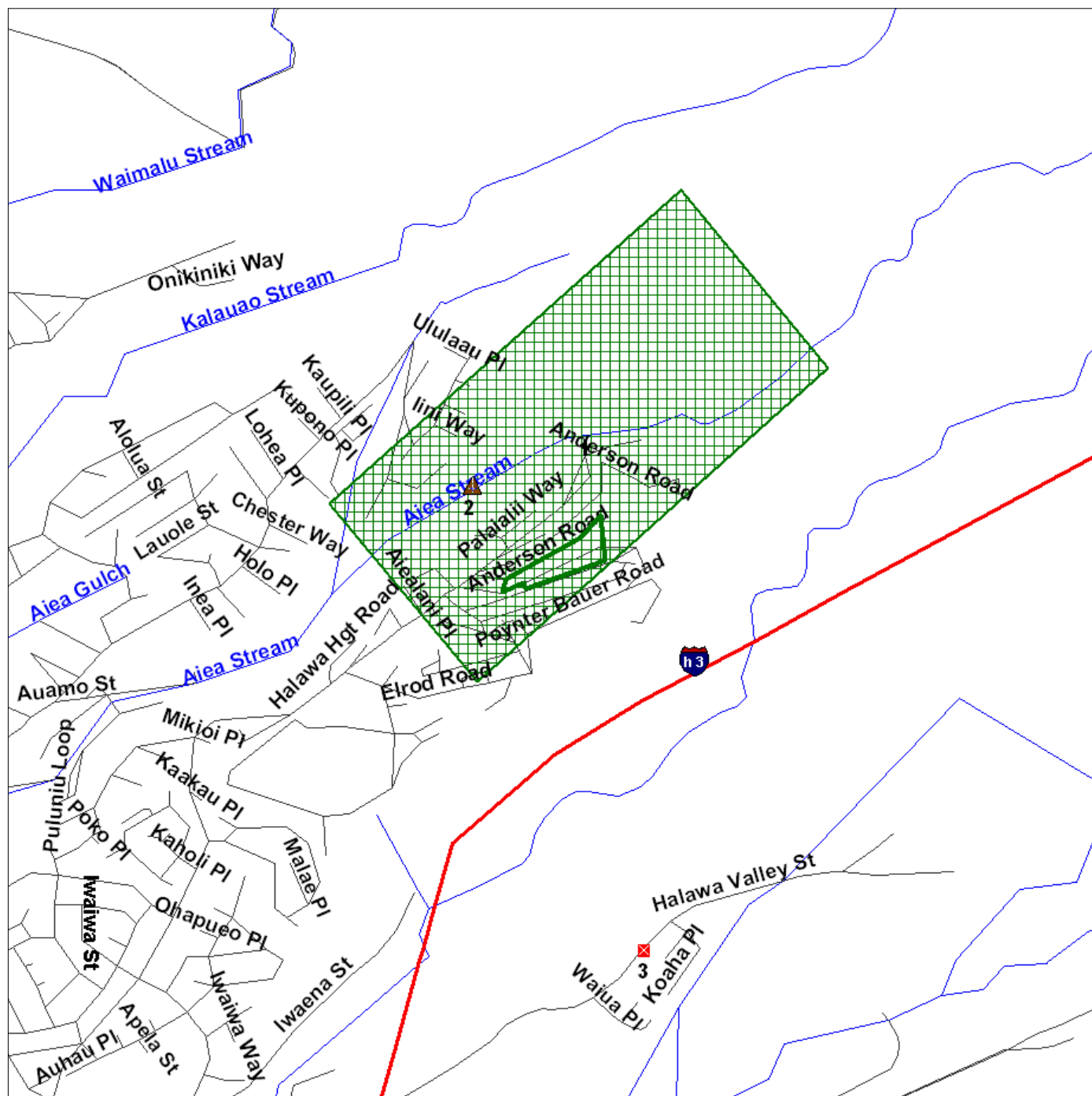


# Environmental FirstSearch

1 Mile Radius from Area  
Single Map:



, HONOLULU HI 96844

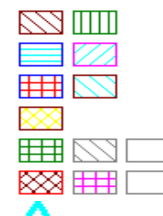


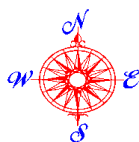
Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste  
Triballand.....  
National Historic Sites and Landmark Sites .....  
Railroads .....



Area of Critical Environmental Concern (ACEC), Protected Open Spaces  
Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....  
Floodplains: 100 Year, 500 Year .....  
Wetlands .....  
Fed. Land Use: Wilderness Areas, Wildlife Preserves .....  
Fed. Land Use: Amer. Indian Sacred Sites, Endangered Species' Habitats..  
Federal Wells .....



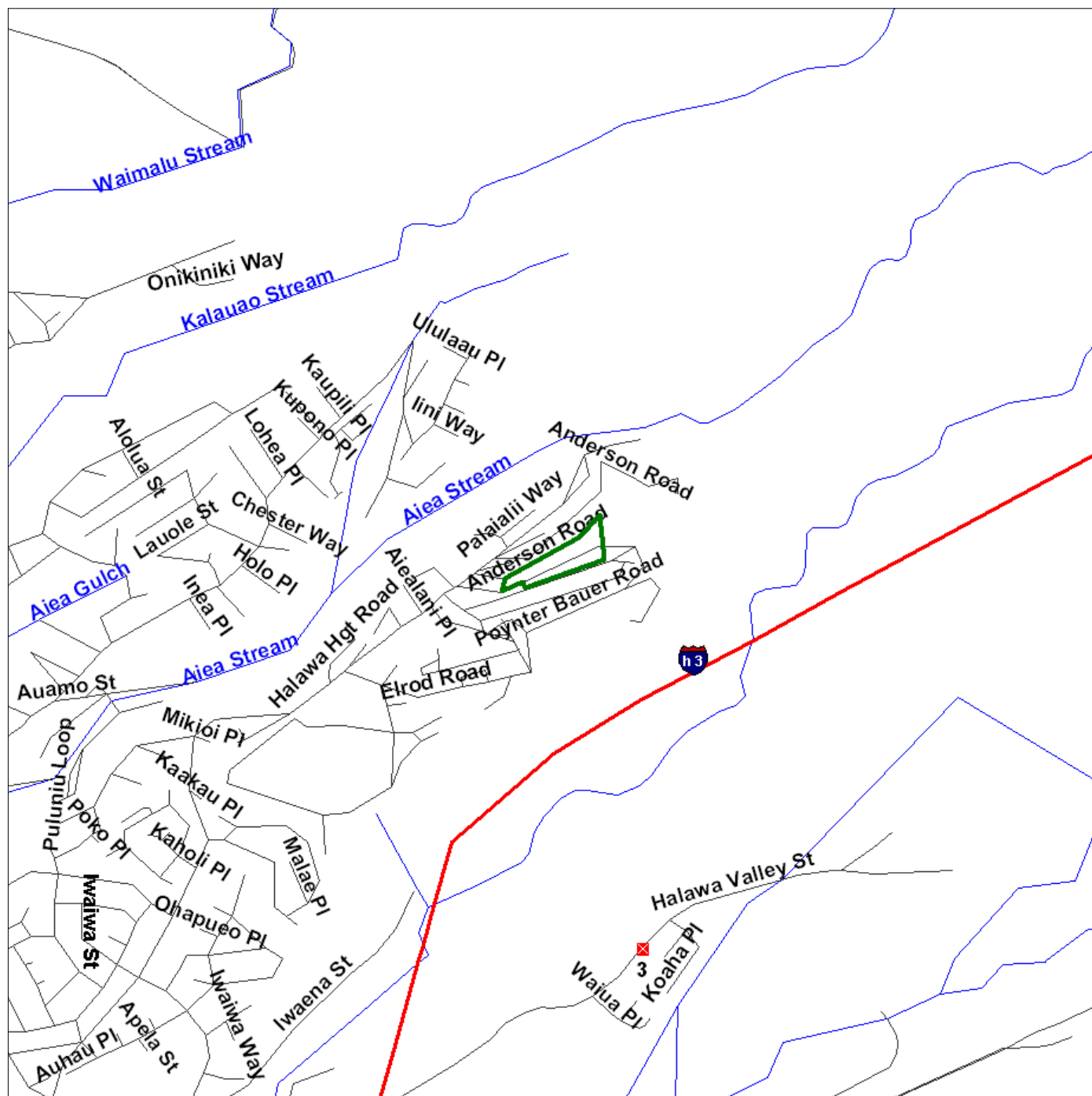


# Environmental FirstSearch

1 Mile Radius from Area  
ASTM-05: NPL, RCRA COR, STATE



, HONOLULU HI 96844

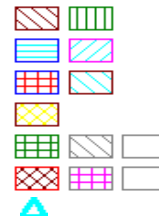


Source: U.S. Census TIGER Files

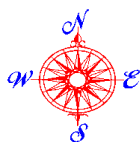
Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste  
Triballand.....  
National Historic Sites and Landmark Sites .....  
Railroads .....



Area of Critical Environmental Concern (ACEC), Protected Open Spaces  
Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....  
Floodplains: 100 Year, 500 Year .....  
Wetlands .....  
Fed. Land Use: Wilderness Areas, Wildlife Preserves .....  
Fed. Land Use: Amer. Indian Sacred Sites, Endangered Species' Habitats..  
Federal Wells .....





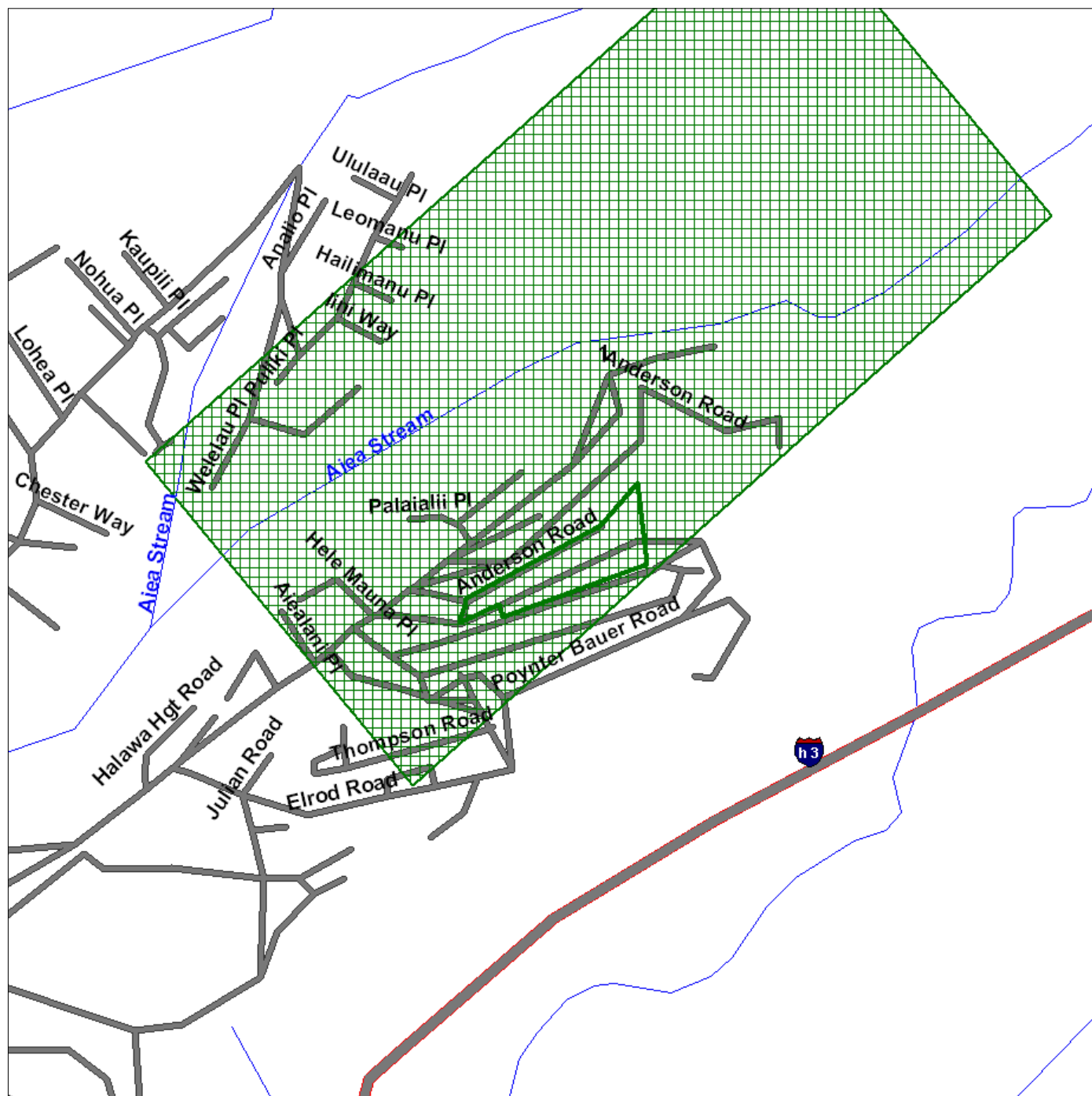


# Environmental FirstSearch

.5 Mile Radius from Area  
ASTM-05: Multiple Databases



, HONOLULU HI 96844

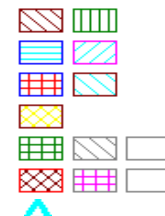


Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste  
Triballand.....  
National Historic Sites and Landmark Sites .....  
Railroads .....



Area of Critical Environmental Concern (ACEC), Protected Open Spaces  
Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....  
Floodplains: 100 Year, 500 Year .....  
Wetlands .....  
Fed. Land Use: Wilderness Areas, Wildlife Preserves .....  
Fed. Land Use: Amer. Indian Sacred Sites, Endangered Species' Habitats..  
Federal Wells .....



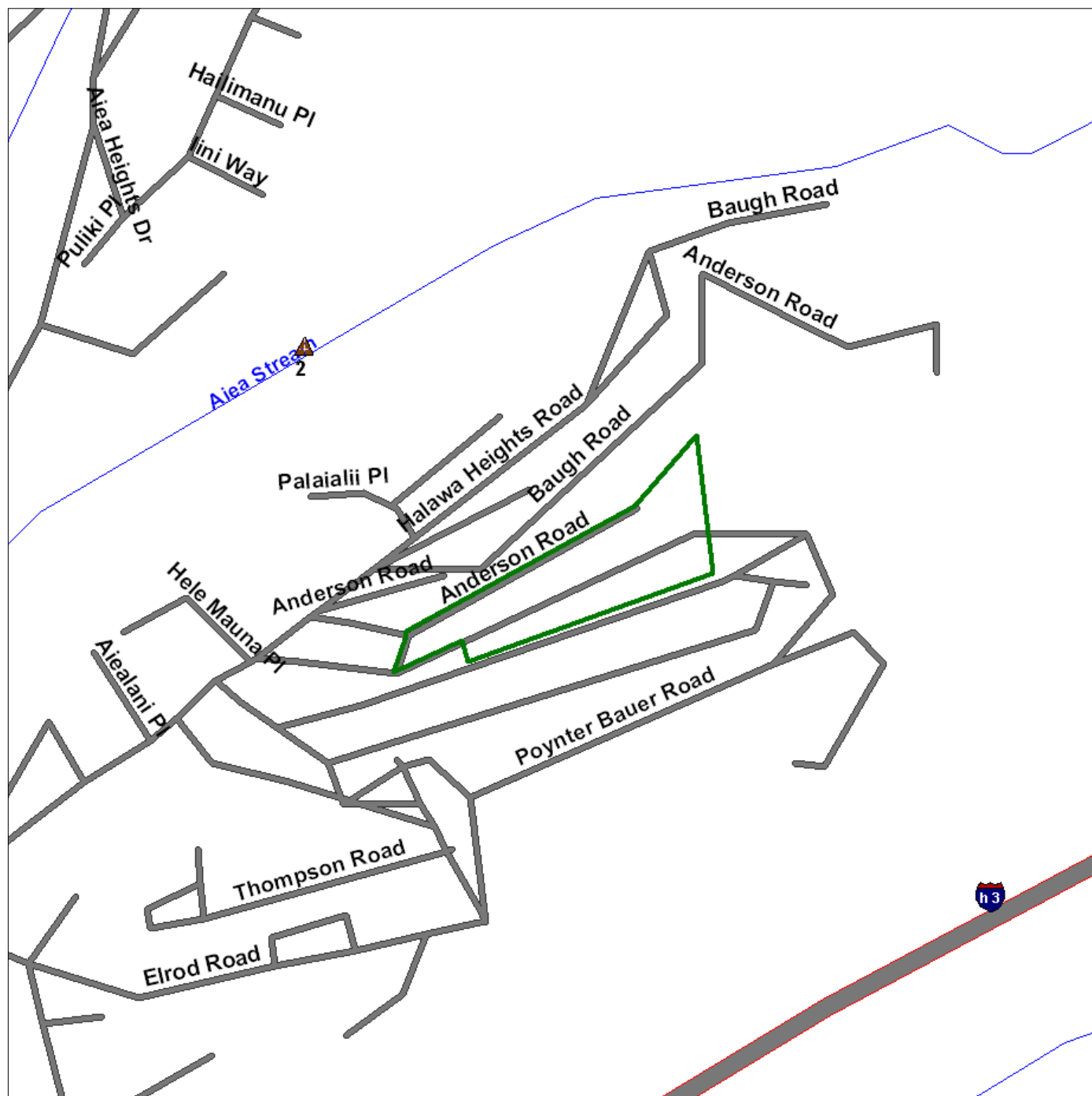


## Environmental FirstSearch

.25 Mile Radius from Area  
ASTM-05: Multiple Databases



, HONOLULU HI 96844

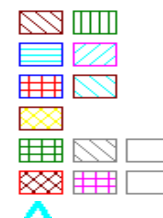


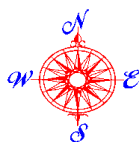
Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste  
Triballand.....  
National Historic Sites and Landmark Sites .....  
Railroads .....



Area of Critical Environmental Concern (ACEC), Protected Open Spaces  
Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....  
Floodplains: 100 Year, 500 Year .....  
Wetlands .....  
Fed. Land Use: Wilderness Areas, Wildlife Preserves .....  
Fed. Land Use: Amer. Indian Sacred Sites, Endangered Species' Habitats..  
Federal Wells .....



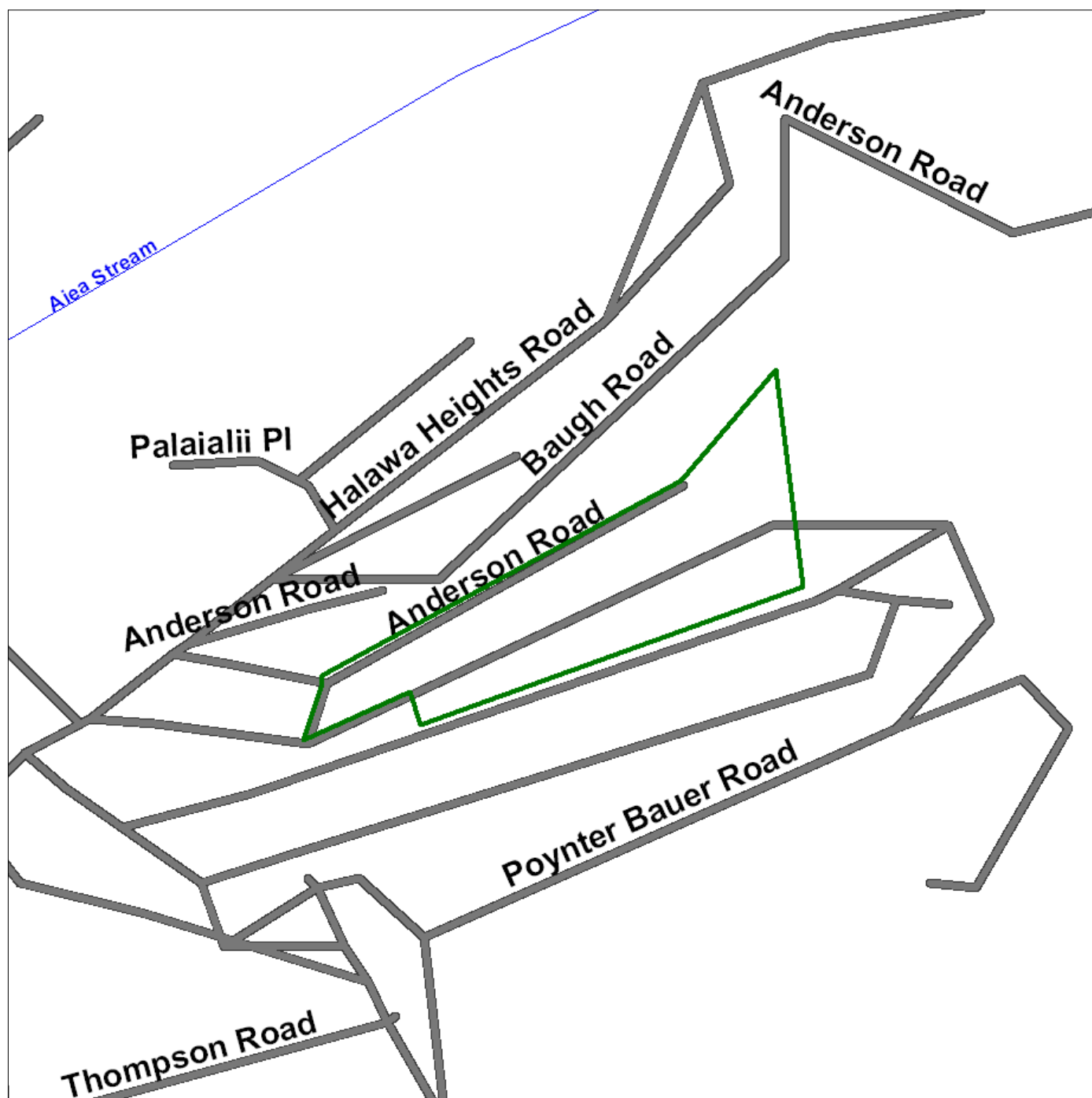


## Environmental FirstSearch

.12 Mile Radius from Area  
ASTM-05: ERNS, RCRANLR



, HONOLULU HI 96844

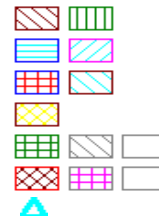


Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste  
Triballand.....  
National Historic Sites and Landmark Sites .....  
Railroads .....



Area of Critical Environmental Concern (ACEC), Protected Open Spaces  
Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....  
Floodplains: 100 Year, 500 Year .....  
Wetlands .....  
Fed. Land Use: Wilderness Areas, Wildlife Preserves .....  
Fed. Land Use: Amer. Indian Sacred Sites, Endangered Species' Habitats..  
Federal Wells .....



***Environmental FirstSearch  
Site Information Report***

**Request Date:** 07-16-07  
**Requestor Name:** (b) (6)  
**Standard:** ASTM-05

**Search Type:** AREA  
0.01 sq mile(s)  
**Job Number:** 071607  
**Filtered Report**

**Target Site:**

HONOLULU HI 96844

*Demographics*

<b>Sites:</b> 7	<b>Non-Geocoded:</b> 3	<b>Population:</b> NA
<b>Radon:</b> NA		

*Site Location*

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>		<u>UTMs</u>
<b>Longitude:</b>	-157.905698	-157:54:21	<b>Easting:</b>	613435.798
<b>Latitude:</b>	21.39331	21:23:36	<b>Northing:</b>	2365933.276
			<b>Zone:</b>	4

*Comment*

**Comment:**

*Additional Requests/Services*

**Adjacent ZIP Codes:** 0.25 Mile(s)

**Services:**

ZIP		ST	Dist/Dir	Sel
Code	City Name			
96701	AIEA	HI	0.00 --	Y
96861	CAMP H M SMITH	HI	0.18 SE	N

	Requested?	Date
Sanborns	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search/Env Liens	No	
Municipal Reports	No	
Online Topos	No	

***Environmental FirstSearch  
Sites Summary Report***

**Target Property:**

HONOLULU HI 96844

**JOB:** 071607

**TOTAL:** 7

**GEOCODED:** 4

**NON GEOCODED:** 3

**SELECTED:** 7

Page No.	ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
1	4	LANDUSE	MARINE CORPS DOD CAMP H. M. SMITH 45973	HI	0.00 --	1
2	2	FINDS	HAWAII BIOTECH INC 110020488122/FRS	99 193 AIEA HEIGHTS DRIVE AIEA HI 96701	0.21 NW	2
4	1	RCRAGN	HAWAII BIOTECH INC HIR000136242/SGN	99 193 AIEA HEIGHTS DRIVE AIEA HI 96701	0.21 NW	2
5	3	STATE	HAWAIIAN CEMENT- HALAWA QUARRY HIST_334	99-1100 HALAWA VALLEY ST Aiea HI 96701	0.82 SE	3

***Environmental FirstSearch  
Sites Summary Report***

**Target Property:**

HONOLULU HI 96844

**JOB:** 071607

**TOTAL:** 7

**GEOCODED:** 4

**NON GEOCODED:** 3

**SELECTED:** 7

Page No.	ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
6	5	NFRAP	CAMP H.M. SMITH HI2170090052/NFRAP-N	HALAWA HEIGHTS HEADQUARTERS AIEA HI 96701	NON GC	
7	6	RCRAGN	HALSEY TERRACE NAVAL HOUSING AREA HIR000135798/VGN	PARK 1536 AT ANDERSON CIR HONOLULU HI 96701	NON GC	
8	7	RCRAGN	USNAVY CMDR NAVY REG HI RED HILL F HIR000050401/LGN	HALAWA RED HILL HONOLULU HI 96701	NON GC	

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** HONOLULU HI 96844

**JOB:** 071607

LANDUSE

<b>SEARCH ID:</b> 4	<b>DIST/DIR:</b> 0.00 --	<b>MAP ID:</b> 1
---------------------	--------------------------	------------------

<b>NAME:</b> MARINE CORPS DOD CAMP H. M. SMITH MARINE CORPS BAS <b>ADDRESS:</b> HI  <b>CONTACT:</b>	<b>REV:</b> 1/27/05 <b>ID1:</b> 45973 <b>ID2:</b> <b>STATUS:</b> <b>PHONE:</b>
--	--

**FEDERAL LAND INFORMATION**

<b>NAME:</b>	CAMP H. M. SMITH MARINE CORPS BASE
<b>FEATURE:</b>	MARINE CORPS DOD
<b>ADMINISTERING AGENCY:</b>	DOD
<b>STATE FIPS:</b>	15
<b>AREA:</b>	0
<b>PERIMETER:</b>	0.045

# Environmental FirstSearch

## Site Detail Report

**Target Property:** HONOLULU HI 96844

**JOB:** 071607

### FINDS

**SEARCH ID:** 2      **DIST/DIR:** 0.21 NW      **MAP ID:** 2

<b>NAME:</b> HAWAII BIOTECH INC <b>ADDRESS:</b> 99 193 AIEA HEIGHTS DRIVE AIEA HI 96701 HONOLULU <b>CONTACT:</b>	<b>REV:</b> 11/1/06 <b>ID1:</b> 110020488122 <b>ID2:</b> HIR000136242 <b>STATUS:</b> FRS <b>PHONE:</b>
--	--

**FACILITY REGISTRATION INFORMATION:**

<b>PROGRAM:</b> HI-ECS <b>PROVIDED BY:</b> <b>AGENCY INT QUAL:</b> <b>INT END QUAL:</b> <b>LAST REPORTED:</b> 3/13/2003 <b>ENFORCEMENT ACT:</b> <b>REG PROGRAM:</b> STATE MASTER -	<b>PROGRAM ID:</b> X100879 <b>AGENCY INTERESTED:</b> <b>INTEREST ENDED:</b> <b>SOURCE OF DATA:</b> HEER <b>LAST EXTRACTED:</b> 3/18/2003 6:55:14 PM
--	---

<b>PROGRAM:</b> HI-ECS <b>PROVIDED BY:</b> <b>AGENCY INT QUAL:</b> <b>INT END QUAL:</b> <b>LAST REPORTED:</b> 3/13/2003 <b>ENFORCEMENT ACT:</b> <b>REG PROGRAM:</b> STATE MASTER -	<b>PROGRAM ID:</b> X102570 <b>AGENCY INTERESTED:</b> <b>INTEREST ENDED:</b> <b>SOURCE OF DATA:</b> HEER <b>LAST EXTRACTED:</b> 3/18/2003 7:19:38 PM
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<b>PROGRAM:</b> RCRAINFO <b>PROVIDED BY:</b> FEDERAL AGENCY <b>AGENCY INT QUAL:</b> <b>INT END QUAL:</b> <b>LAST REPORTED:</b> 11/16/2004 <b>ENFORCEMENT ACT:</b> <b>REG PROGRAM:</b> SQG - HAZARDOUS WASTE SMALL QUANTITY GENERATORS GENERATE: (A) MORE THAN 100 AND LESS THAN 1000 KILOGRAMS OF HAZARDOUS WASTE DURING ANY CALENDAR MONTH AND ACCUMULATE LESS THAN 6000 KG OF HAZARDOUS WASTE AT ANY TIME; OR (B) 100 KG OR LESS OF HAZARDOUS WASTE DURING ANY CALENDAR MONTH, AND ACCUMULATE MORE THAN 1000 KG OF HAZARDOUS WASTE AT ANY TIME.	<b>PROGRAM ID:</b> HIR000136242 <b>AGENCY INTERESTED:</b> <b>INTEREST ENDED:</b> <b>SOURCE OF DATA:</b> RCRAINFO <b>LAST EXTRACTED:</b> 1/5/2005 3:03:29 PM
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<b>PROGRAM:</b> FRS <b>PROVIDED BY:</b> FEDERAL AGENCY <b>AGENCY INT QUAL:</b> <b>INT END QUAL:</b> <b>LAST REPORTED:</b> 1/5/2005 3:03:29 PM <b>ENFORCEMENT ACT:</b> <b>REG PROGRAM:</b> FACILITY -	<b>PROGRAM ID:</b> 110020488122 <b>AGENCY INTERESTED:</b> 1/5/2005 3:03:28 PM <b>INTEREST ENDED:</b> <b>SOURCE OF DATA:</b> RCRAINFO <b>LAST EXTRACTED:</b>
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**SITE TYPE:** STATIONARY  
**INTEREST STATUS:** ACTIVE  
**DATA QUALITY:** V  
**LOCATION DESC:**  
**ADDRESS TYPE:** REGULAR URBAN  
**LAST REPORTED:**  
**POSTED TO DATABASE:** 1/5/2005 3:03:29 PM  
**DATA UPDATED:** 1/21/2005 10:50:02 AM  
**ENTERED PERSON/METHOD:** MROSE  
**PARENT REG ID:**

- Continued on next page -



***Environmental FirstSearch  
Site Detail Report***

**Target Property:** HONOLULU HI 96844

**JOB:** 071607

**FINDS**

<b>SEARCH ID:</b> 2	<b>DIST/DIR:</b> 0.21 NW	<b>MAP ID:</b> 2
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<b>NAME:</b> HAWAII BIOTECH INC <b>ADDRESS:</b> 99 193 AIEA HEIGHTS DRIVE AIEA HI 96701 HONOLULU <b>CONTACT:</b>	<b>REV:</b> 11/1/06 <b>ID1:</b> 110020488122 <b>ID2:</b> HIR000136242 <b>STATUS:</b> FRS <b>PHONE:</b>
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**CONFIDENCE IN ADDR:**  
**ENFORCEMENT SENSITIVE:**  
**REQ MANUAL REVIEW:**  
**REASON MAN REVIEW:**  
**SMALL BUS POLICY:**  
**ENFORCEMENT ACTION:**  
**DATA PUB ACCESS:** YES  
**INTERNAL SYS ID:**  
  
**FEDERAL FACILITY:** NO  
**FEDERAL AGENCY:**  
**TRIBAL LAND:** NO  
**TRIBAL LAND NAME:**  
**CONGRESSIONAL DIST:**  
**LEGISLATIVE DIST:**  
**HYDROLOGICAL UNTIS:**  
**EPA REGION:** 09  
**AIRSHED:**  
**CENSUS BLOCK:**

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** HONOLULU HI 96844

**JOB:** 071607

RCRAGN

<b>SEARCH ID:</b> 1	<b>DIST/DIR:</b> 0.21 NW	<b>MAP ID:</b> 2
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<b>NAME:</b> HAWAII BIOTECH INC <b>ADDRESS:</b> 99 193 AIEA HEIGHTS DRIVE AIEA HI 96701 HONOLULU <b>CONTACT:</b> (b) (6)	<b>REV:</b> 6/6/06 <b>ID1:</b> HIR000136242 <b>ID2:</b> <b>STATUS:</b> SGN <b>PHONE:</b> 808-792-1364
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**SITE INFORMATION**

**CONTACT INFORMATION:** (b) (6)  
99 193 AIEA HEIGHTS DRIVE  
AIEA HI 96701

**PHONE:** 808-792-1364

**UNIVERSE INFORMATION:**

**NAIC INFORMATION**

54171 - RESEARCH AND DEVELOPMENT IN THE PHYSICAL, ENGINEERING, AND LIFE SCIENCES

**ENFORCEMENT INFORMATION:**

**VIOLATION INFORMATION:**

**HAZARDOUS WASTE INFORMATION:**

Ignitable waste  
Corrosive waste  
Reactive waste  
Mercury

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** HONOLULU HI 96844

**JOB:** 071607

STATE

<b>SEARCH ID:</b> 3	<b>DIST/DIR:</b> 0.82 SE	<b>MAP ID:</b> 3
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<b>NAME:</b> HAWAIIAN CEMENT- HALAWA QUARRY <b>ADDRESS:</b> 99-1100 HALAWA VALLEY ST AIEA HI 96701	<b>REV:</b> 07/24/06 <b>ID1:</b> HIST_334 <b>ID2:</b> <b>STATUS:</b> <b>PHONE:</b>
<b>CONTACT:</b>	

<b>Filed Under:</b>	<i>Hawaiian Cement</i>
<b>Unit:</b>	<i>Hawaiian Cement Halawa Quarry Oil Release From UST</i>
<b>Federal ID:</b>	
<b>Agreement Program:</b>	<i>State Site</i>
<b>Funding:</b>	
<b>Sitelist Name:</b>	<i>Hawaiian Cement Halawa Quarry Oil Release From UST</i>
<b>Supplemental Location:</b>	
<b>Activity Type:</b>	<i>Ranking</i>
<b>Comments:</b>	
<b>IC:</b>	
<b>Status:</b>	<i>SDAR NFA</i>
<b>Assignment Date:</b>	<i>9/30/2005</i>
<b>Activity Lead:</b>	<b>(b) (6)</b>
<b>Restricted Use:</b>	
<b>End Date:</b>	<i>2/7/2006</i>
<b>End Fill:</b>	<i>2/7/2006</i>
<b>Result Fill:</b>	<i>Referred to SHWB</i>

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** HONOLULU HI 96844

**JOB:** 071607

NFRAP

<b>SEARCH ID:</b> 5	<b>DIST/DIR:</b> NON GC	<b>MAP ID:</b>
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<b>NAME:</b> CAMP H.M. SMITH <b>ADDRESS:</b> HALAWA HEIGHTS HEADQUARTERS - AIEA AIEA HI 96701	<b>REV:</b> 4/11/07 <b>ID1:</b> HI2170090052 <b>ID2:</b> 0904260 <b>STATUS:</b> NFRAP-N <b>PHONE:</b>
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**CONTACT:**

**DESCRIPTION:**

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
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***Environmental FirstSearch  
Site Detail Report***

**Target Property:** HONOLULU HI 96844

**JOB:** 071607

RCRAGN

<b>SEARCH ID:</b> 6	<b>DIST/DIR:</b> NON GC	<b>MAP ID:</b>
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<b>NAME:</b> HALSEY TERRACE NAVAL HOUSING AREA <b>ADDRESS:</b> PARK 1536 AT ANDERSON CIR HONOLULU HI 96701 HI003 <b>CONTACT:</b> (b) (6)	<b>REV:</b> 6/6/06 <b>ID1:</b> HIR000135798 <b>ID2:</b> <b>STATUS:</b> VGN <b>PHONE:</b> 808-927-7703
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**SITE INFORMATION**

**CONTACT INFORMATION:** (b) (6)  
2969 MAPUNAPUNA PL  
HONOLULU HI 96819

**PHONE:** 808-927-7703

**UNIVERSE INFORMATION:**

**NAIC INFORMATION**

81411 - PRIVATE HOUSEHOLDS  
562112 - HAZARDOUS WASTE COLLECTION  
56291 - REMEDIATION SERVICES  
562111 - SOLID WASTE COLLECTION

**ENFORCEMENT INFORMATION:**

**VIOLATION INFORMATION:**

**HAZARDOUS WASTE INFORMATION:**

Lead  
Ignitable waste  
Corrosive waste  
Mercury

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** HONOLULU HI 96844

**JOB:** 071607

RCRAGN

<b>SEARCH ID:</b> 7	<b>DIST/DIR:</b> NON GC	<b>MAP ID:</b>
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<b>NAME:</b> USNAVY CMDR NAVY REG HI RED HILL FT FARM <b>ADDRESS:</b> HALAWA RED HILL HONOLULU HI 96701  <b>CONTACT:</b> (b) (6)	<b>REV:</b> 6/6/06 <b>ID1:</b> HIR000050401 <b>ID2:</b> <b>STATUS:</b> LGN <b>PHONE:</b> 8084731223
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**SITE INFORMATION**

**CONTACT INFORMATION:** (b) (6)  
USNAVY PUBLIC WORKS CTR PEARL HARBOR N465  
PEARL HARBOR HI 968605470

**PHONE:** 8084731223

**UNIVERSE INFORMATION:**

**NAIC INFORMATION**

92811 - NATIONAL SECURITY

**ENFORCEMENT INFORMATION:**

**VIOLATION INFORMATION:**

**HAZARDOUS WASTE INFORMATION:**

D000  
Lead  
Ignitable waste  
Chromium

## Environmental FirstSearch Descriptions

**NPL: EPA NATIONAL PRIORITY LIST** - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.

A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

FINAL - Currently on the Final NPL

PROPOSED - Proposed for NPL

**NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset** - Database of delisted NPL sites. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

DELISTED - Deleted from the Final NPL

**CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)**- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

PART OF NPL- Site is part of NPL site

DELETED - Deleted from the Final NPL

FINAL - Currently on the Final NPL

NOT PROPOSED - Not on the NPL

NOT VALID - Not Valid Site or Incident

PROPOSED - Proposed for NPL

REMOVED - Removed from Proposed NPL

SCAN PLAN - Pre-proposal Site

WITHDRAWN - Withdrawn

**NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES** - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

NFRAP – No Further Remedial Action Plan

P - Site is part of NPL site

D - Deleted from the Final NPL

F - Currently on the Final NPL

N - Not on the NPL

O - Not Valid Site or Incident

P - Proposed for NPL

R - Removed from Proposed NPL

S - Pre-proposal Site

W – Withdrawn

**RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES** - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984. RCRAInfo facilities that have reported violations and subject to corrective actions.

**RCRA TSD: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM**

**TREATMENT, STORAGE, and DISPOSAL FACILITIES.** - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that treat, store, dispose, or incinerate hazardous waste.

**RCRA GEN: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS** - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984. Facilities that generate or transport hazardous waste or meet other RCRA requirements.

LGN - Large Quantity Generators

SGN - Small Quantity Generators

VGN – Conditionally Exempt Generator.

Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

**RCRA NLR: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES** - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities not currently classified by the EPA but are still included in the RCRAInfo database. Reasons for non classification:

Failure to report in a timely matter.

No longer in business.

No longer in business at the listed address.

No longer generating hazardous waste materials in quantities which require reporting.

**Federal IC / EC: EPA BROWNFIELD MANAGEMENT SYSTEM (BMS)** - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs.

**FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS-** Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.

**ERNS: EPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS)** - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

**Tribal Lands: DOI/BIA INDIAN LANDS OF THE UNITED STATES** - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

**State/Tribal Brownfields: HI DOH STATE BROWNFIELDS LISTING**-The Hawaii Department of Health's Office of Hazard Evaluation and Emergency Response (HEER) inventory of brownfields sites.

**State/Tribal Sites: HI DOH STATE RESPONSE LISTING**-The Hawaii Department of Health's Office of Hazard Evaluation and Emergency Response (HEER) inventory of facilities, sites, or areas in which HEER has



an interest, has investigated, or may investigate under HRS 128D (includes CERCLIS sites).

**State/Tribal VCP:** *HI DOH* VOLUNTARY RESPONSE PROGRAM LISTING-The Hawaii Department of Health's Office of Hazard Evaluation and Emergency Response (HEER) inventory of sites participating in the state's Voluntary Response Program.

**State/Tribal IC:** *HI DOH* INSTITUTIONAL CONTROLS LISTING-The Hawaii Department of Health's Office of Hazard Evaluation and Emergency Response (HEER) inventory of sites with institutional controls.

**State/Tribal LUST:** *HI DOH* LEAKING UNDERGROUND STORAGE TANKS-The Hawaii Department of Health's inventory of sites with leaking underground storage tanks.

**State/Tribal UST/AST:** *HI DOH* UNDERGROUND STORAGE TANKS- The Hawaii Department of Health's inventory of underground storage tanks.

**State ACEC:** *USFWS* US FISH AND WILDLIFE CONTACT INFORMATION - database of contact information for the US Fish and Wildlife Service loaded by zipcode.

**Wetlands:** *US FWS* NATIONAL WETLANDS INVENTORY (NWI) - database of information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. This data is available for select areas of the United States.

**Floodplains:** *FEMA* FLOODPLAINS – database of 100 year and 500 year flood zone boundaries for select counties in the United States

**Receptors:** *US DOC* SENSITIVE RECEPTORS - 2005 Census Bureau's TIGER (Topologically Integrated Geographic Encoding and Referencing System) database of schools and hospitals. List of schools and hospitals that may house individuals deemed sensitive to environmental discharges due to their fragile immune systems.

**Historic Landmarks:** *NPS* NATIONAL REGISTRY OF HISTORIC PLACES DATABASE - The nation's official list of cultural resources worthy of preservation. Properties listed include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

**Federal Land Use:** *USGS/EPA/FWS* FEDERAL LANDS OF THE UNITED STATES - Database of lands owned or administered by the Federal Government, including the Bureau of Land Management, the Bureau of Reclamation, the U.S. Department of Agriculture Forest Service, the Department of Defense, the U.S. Fish and Wildlife Service, the National Park Service, the Tennessee Valley Authority, and other agencies. Only areas of 640 acres or more are included. Descriptive information includes the name and type of the Federal land and the administering agency.

ENDANGERED SPECIES PROTECTION PROGRAM DATABASE – List of the Endangered Species by county and the species status./n NATIONAL WILDLIFE REGUGE DATA - database of boundaries for National Wildlife Refuges, National Fish Hatcheries, and USFWS administrative sites. Contains information regarding refuge name and contact information.

**Federal Wells:** *USGS* UNITED STATES GROUND-WATER SITES INVENTORY - Database of more than 850,000 records of wells, springs, test holes, tunnels, drains, and excavations in the United States.

**NPDES:** *EPA* THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM - Database of permitted facilities receiving and discharging effluents to and from a natural source where treatment of the effluent is monitored.

**FINDS:** *EPA* FACILITY INDEX SYSTEM(FINDS)/FACILITY REGISTRY SYSTEM(FRS) - The index of identification numbers associated with a property or facility which the EPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the EPA office that may have files on the site or facility. A Facility Registry System site has an FRS in the status field.

**TRIS:** *EPA* TOXIC RELEASE INVENTORY SYSTEM (TRIS)– Database that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities. This inventory was established under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and expanded by the Pollution Prevention Act of 1990.

**HMIRS:** *US DOT* HAZARDOUS MATERIALS INCIDENT RESPONSE SYSTEM - Database of information regarding materials, packaging, and a description of events for tracked incidents.

**NCDB:** *EPA* NATIONAL COMPLIANCE DATA BASE SYSTEM - Database of regional compliance and enforcement activity and manages the Pesticides and Toxic Substances Compliance and Enforcement program at a national level. The system tracks all compliance monitoring and enforcement activities from the time an inspector conducts an inspection until the time the inspector closes or the case settles the enforcement action. NCDB is the national repository of the 10 regional and Headquarters FIFRA/TSCA Tracking System (FTTS). Data collected in the regional FTTS is transferred to NCDB to support the need for monitoring national performance of regional programs.

**PADS:** *EPA* DATABASE OF PCB HANDLERS - Database of PolyChlorinatedBiPhenol generators, transporters, storers and/or disposers that are required to register with the EPA. This database indicates the type of handler and registration number. Also included is the PCB Transformer Registration Database.

**RADON:** *NTIS* NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

**Federal Other:** *EPA* SECTION SEVEN TRACKING SYSTEM (SSTS) – database of registration and production data for facilities which manufacture pesticides.

## Environmental FirstSearch Database Sources

**NPL: EPA** Environmental Protection Agency

*Updated quarterly*

**NPL DELISTED: EPA** Environmental Protection Agency

*Updated quarterly*

**CERCLIS: EPA** Environmental Protection Agency

*Updated quarterly*

**NFRAP: EPA** Environmental Protection Agency.

*Updated quarterly*

**RCRA COR ACT: EPA** Environmental Protection Agency.

*Updated quarterly*

**RCRA TSD: EPA** Environmental Protection Agency.

*Updated quarterly*

**RCRA GEN: EPA** Environmental Protection Agency.

*Updated quarterly*

**RCRA NLR: EPA** Environmental Protection Agency

*Updated quarterly*

**Federal IC / EC: EPA** Environmental Protection Agency

*Updated quarterly*

**ERNS: EPA/NRC** Environmental Protection Agency

*Updated semi-annually*

**Tribal Lands: DOI/BIA** United States Department of the Interior

*Updated annually*

**State/Tribal Brownfields: HI DOH** Office of Hazard Evaluation and Emergency Response, Hawaii State

Department of Health

*Updated biannually*

**State/Tribal Sites:** *HI DOH* Office of Hazard Evaluation and Emergency Response, Hawaii State Department of Health

*Updated biannually*

**State/Tribal VCP:** *HI DOH* Office of Hazard Evaluation and Emergency Response, Hawaii State Department of Health

*Updated biannually*

**State/Tribal IC:** *HI DOH* Office of Hazard Evaluation and Emergency Response, Hawaii State Department of Health

*Updated biannually*

**State/Tribal LUST:** *HI DOH* The Hawaii Department of Health, Solid and Hazardous Waste Branch

*Updated biannually*

**State/Tribal UST/AST:** *HI DOH* The Hawaii Department of Health, Solid and Hazardous Waste Branch

*Updated biannually*

**State ACEC:** *USFWS* United States Fish and Wildlife Services

*Updated semi-annually*

**Wetlands:** *US FWS* U.S. Fish and Wildlife Service

*Updated when available*

**Floodplains:** *FEMA* Federal Emergency Management Agency

*Updated when available*

**Receptors:** *US DOC* US Department of Commerce, Census Bureau

*Updated periodically*

**Historic Landmarks:** *NPS* National Park Service

*Updated annually*

**Federal Land Use:** *USGS/EPA/FWS* U.S. Geological Survey

*Updated annually*

**Federal Wells:** *USGS* United States Geographical Survey.

*Updated annually*

**NPDES:** *EPA* Environmental Protection Agency

*Updated quarterly*

**FINDS:** *EPA* Environmental Protection Agency

*Updated annually*

**TRIS:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**HMIRS:** *US DOT* US Department of Transportation

*Updated quarterly*

**NCDB:** *EPA* Environmental Protection Agency

*Updated quarterly*

**PADS:** *EPA* Environmental Protection Agency

*Updated quarterly*

**RADON:** *NTIS* Environmental Protection Agency, National Technical Information Services

*Updated periodically*

**Federal Other:** *EPA* Environmental Protection Agency

*Updated quarterly*

***Environmental FirstSearch***  
***Street Name Report for Streets within .25 Mile(s) of Target Property***

**Target Property:** HONOLULU HI 96844

**JOB:** 071607

<b>Street Name</b>	<b>Dist/Dir</b>	<b>Street Name</b>	<b>Dist/Dir</b>
NOCOVERAGE	0.00 --		
Anderson Rd	0.02 NW		
Baugh Rd	0.04 NW		
Palaialii Pl	0.05 NW		
Halawa Heights Rd	0.05 NW		
Palaialii Way	0.08 NW		
Hele Mauna Pl	0.10 NW		
Thompson Rd	0.13 SE		
Aiealani Pl	0.17 SW		
Elrod Rd	0.18 SE		
Fernridge Pl	0.22 SW		